A Grammar of Tadaksahak

a Northern Songhay Language of Mali

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A Grammar of Tadaksahak,
a Northern Songhay Language of Mali

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Abbreviations and symbols

-	morpheme boundary
=	clitic boundary
~	variant of lexeme
´̱	stress over a syllable
^	fixed stress on stem of words
<	borrowed from
1p	1st person plural
1s	1st person singular
2p	2nd person plural
2s	2nd person singular
3p	3rd person plural
3s	3rd person singular
ACT	actor-nominalizer
ADJZR	adjectivizer
ALL	allative
ANA	anaphoric demonstrative
BND	bound root (Tamasheq origin)
C	consonant
COMV	verbal complement
D	Tamasheq Tudalt
DAT	dative
DET	determiner
DEM.FAR	demonstrative pointing in the distance

DEM.NEAR	demonstrative pointing close
DEM.PROX	demonstrative pointing in proximity
INT	intensifying discours particule
EMP	emphatic
EXM	extraction marker
F	feminine
FUT	future
FOC	subject focus marker
GEN	genitive postposition
IMP	imperative
IMPERF	imperfective
INST	instrument
IO	unmarked indirect object (usually dative)
KCH	Koyra Chiini: Songhay of Timbuktu
KS	Koyraboro Senni: Songhay of Gao
LOC	locative postposition
LC	logical consequence
MAN	mood-aspect-negation marker
NEG	negation
O	object
PL	plural
POSS	possessive postposition
PP	postpostition
QST	question particle

S	subject
SG	singular
SUBJ	subjunctive
V	vowel
VEN	ventive
VN	verbal noun
W	Tamasheq Eastern Tawəlləmmet (Tahoua)
WW	Tamasheq Western Tawəlləmmet (Menaka)

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Map

The oval inset shows the Republic of Mali with the enlarged area in a rectangle.
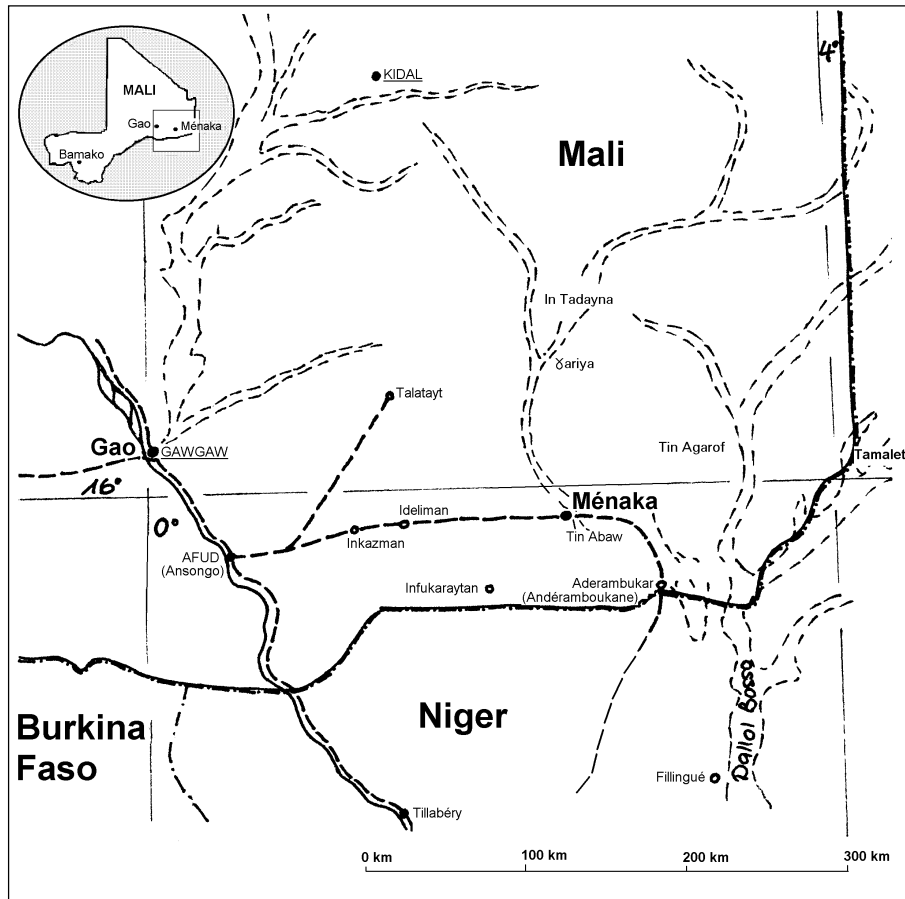
The different lines stand for:

Line	Meaning
·—·—·—·—	border to a neighboring country
— — —	all year passable road
- - - - -	oued/depression leading water in rainy season
Tin Agarof	location name

1. Introduction

1.1   General information

1.1.1. Location

Tadaksahak is the language spoken by the Idaksahak (also known as Dausahak), a nomadic group living mostly in the administrative 'cercle de Ménaka' and in the northern part of the 'cercle d'Ansongo' in the seventh region of the Republic of Mali.

The area is between longitude 0° and 4º east and between some degrees north and south along latitude 16° north. The area is also inhabited by speakers of other languages such as the Tuaregs, the Songhay, Arabs, and the Fulfulde.

1.1.2. Classification

Tadaksahak was classified (Nicolaï 1981:25) as part of the Songhay languages spoken along the Niger river in Mali and the western part of Niger. Songhay was tentatively attached to the large Nilo-Saharan phylum (Greenberg 1966). More recent hypotheses published by Robert Nicolaï (1984, 1990) suggest that Songhay came into existence as a creole language with important lexical input from Tamasheq.

The Songhay branch comprises roughly the following languages as indicated on the website of the online Ethnologue (2005) and in combination with Nicolaï's classification (1981).

Language names	Location: country	city
Southern Songhay		
Songhay, Koyra Chiini	Mali	Timbuktu
Songhay, Koroboro Senni	Mali	Gao
Songhay	Mali, Burkina Faso	Hombori
Zarma	Niger	Niamey
Dendi	Benin	

Northern Songhay

Tadaksahak	Mali	Menaka
Tagdal	Niger	
Tasawaq	Niger	In-Gall
Korandje	Algeria	Tabelbala

The speech varieties labeled 'Southern Songhay' on the list will be called 'Mainstream Songhay' in this work. This is to indicate that they behave differently from the Northern Songhay varieties. Tadaksahak is part of the Northern Songhay group. All Northern Songhay languages have undergone heavy influence from Tuareg. Tuareg is a Berber language from the Afro-Asiatic phylum which, from a Songhay perspective, exhibits very different syntax, morphology and lexicon.

Some authors consider Tadaksahak to be a 'mixed language' (Lacroix 1968, Nicolaï 1990, Benítez-Torres 2008) on the basis of the large percentage of non-Songhay lexicon and grammatical morphemes. In this description I shall remain neutral as to this issue, as it aims at describing the synchronic facts in the language.

1.1.3. Name of the language

Tadaksahak is the name that the people use themselves for their language. Authors of linguistic works have used this name, too. Authors of other reports and the administration in Mali also use this name, though rarely.

The "Ethnologue" of the SIL International (Online version 2005) lists a number of names associated with this language. Apart from the name of Tadaksahak, a variety of different spellings are listed, which recall the name used by the Tuareg to designate the people: Dausahaq, Daoussak, Daoussahaq, Dawsahaq, Daosahaq.

The names used by the people themselves refer to a female or a male person, singular or plural.

native term	meaning
a-dáksahak	man of the group
i-dáksahak	men/group of the group
t-a-dáksahak(-k)	woman of the group
	name of the language
t-ə-dáksahak	women of the group

These names indicate at the same time the social status within the caste system of that society. They are only used to designate individuals belonging to the fair-skinned highest caste. The caste of the blacksmiths and the one of the slaves, formerly captured on raids in the South, are referred to by different terms.

Prasse et al. (2003) list Dăw-Ṣahak / Idd-aw-Iṣăhak 'son/s of Isaac (the Jewish ancestor)', which seems to be an indication that they are of Jewish origin. This opinion is widely held by the neighboring ethnic groups. The Idaksahak themselves do not claim Jewish ancestry.

The Colonial French administration and today's local civil authorities use the term "daoussahak" to designate the people and the language.

The sedentary people speaking Mainstream Songhay in the three largest market towns in the area use a variant of this term, "dosahak".

1.2 History and Geography

The Idaksahak themselves indicate Morocco, or more generally, "the North", as their place of origin from where they left some centuries ago. A well educated Adaksahak did some research in genealogies and found evidence that the Idaksahak do not share ancestors with the Tuareg, but probably come from another Berber group in North Africa (Mohammed Ag Guidi, p.c. 1993).

According to some traditions, the Idaksahak may have lived in the Timbuktu area for a period of time before moving on together with a Tuareg group towards the area where the Idaksahak live today.

The Idaksahak are part of Tuareg society, and are considered a group inside the Kel-Ataram ("people of the west"). They have traditionally been herdsmen for the nobility of the Iwəlləmmədăn

Tuareg and have thus been under protection of the (Tuareg) warrior caste (the so-called nobility). Since they represent a distinct ethnic group and a dependent social community, their relationship was not so close that the Kel-Tamasheq would inherit from the Idaksahak (Mohammed Ag Guidi, p.c., 1993). Until recently, to marry outside the ethnic group, or the caste, was not considered as appropriate and would be sanctioned by the community.

Besides being herdsmen, the Idaksahak were a Maraboutic tribe, which performed the religious duties for the nobility of the Tuareg. Traditionally, these Islamic specialists were not allowed to carry weapons and thus depended on the protection of the Tuareg warriors. The clan of the *Id-aſſaríf,* considered to be direct descendants of the clan of the Prophet Mohamed, is the best known maraboutic clan among the Idaksahak, but there are also other groups that claim to have maraboutic knowledge.

In recent years, this interdependence has become less important, as the Tuareg community in Mali no longer seeks this service. Tuareg maraboutic clans, such as the Kel Assuk, also perform these religious rites.

The severe and returning droughts of the past three decades have seriously put into difficulties the different pastoral groups herding in the area. In addition, the armed uprising of a number of nomadic groups against the central Malian government from 1990 to 1995 shook the area on a social and security level.

For lack of work in their homeland, many young men seek work abroad in the countries of the Maghrib. They often work as herdsmen or as traders. Women rarely leave the area.

However, there are established Idaksahak communities found outside the homeland. Isolated communities of black Idaksahak, descendants of the former slaves, live as farmers on the west bank of the Niger river in the Republic of Niger, and possibly also in the most northern part of Burkina Faso (Sudlow 2001:6). A larger community lives in Tamanrasset, Algeria, which was established there after the first Tuareg rebellion in the 1960s.

1.3 Earlier studies

Pierre-Francis Lacroix was the first to mention Tadaksahak in linguistic literature, together with related languages. They were referred to as "mixed languages" because of the evidence of strong influence from Tamasheq (Lacroix 1968). Further studies include the phonological sketch in Nicolaï (1979) and Nicolaï (1980) as well as the description of verb derivation in Christiansen & Christiansen (2007).

In his extensive study of Songhay languages, Robert Nicolaï classified Tadaksahak as part of Northern Songhay (Nicolaï 1981:25, see Fig. 1). According to Nicolaï, Tagdal and very similar Tabarog (which he refers to together as Tihishit), together with Tadaksahak form the nomadic subgroup. According to the Idaksahak, the Igdalen, who speak Tagdal, are considered to be their descendants. They live in the region further east to the Idaksahak's territory in the Republic of Niger. The Igdalen used to have economic links with the Iberogan (speaking Tabarog), who now live further south as agriculturists.

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                     Northern Songhay
            sedentary                      nomadic
        Korandje    Tasawaq        Tihishit          Tadaksahak
                               Tabarog    Tagdal
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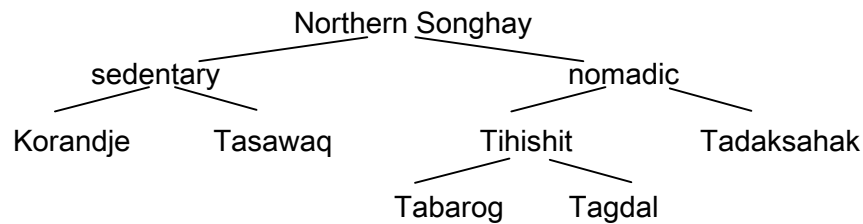
Figure 1: Classification adapted from Nicolaï

1.4 Dialects

There are about 31,800 speakers of Tadaksahak (Ethnologue 2005) including all social groupings. Like the Tuareg society, the Idaksahak traditionally have a caste system that divides the community into three distinct social classes of 'free masters' (*i-dáksahak*), 'craftspeople' (*ʒeem-án,* comprising blacksmith families for woodwork, metal and silver) and the 'captives' ('slaves') (*ṭaam-én*) from black ethnic groups from the south.

In this work I describe the language variety as it is used in the area around Menaka, consisting of several fractions over a larger area, who communicate in this speech variety.

As to lexical deviations, I have placed them under one of the following three location names: Tamalet, on the Azawagh valley (mainly spoken by the clan of the Ibhan and Tarbanasse); Talatayt, north-west of Menaka; Infukaraytan, on the southern border of the Idaksahak's homeland, situated between Menaka and Niamey, on the border to the Republic of Niger.

The most significant phonetic feature of the Tamalet variety is the merging of the palatal plosives /c/ and /ɟ/ with the fricatives /ʃ/ and /ʒ/ respectively. In addition, the feminine plural prefix /t-ə-/ of Tadak-sahak is pronounced [ʃi-]. There are also a number of lexical particularities. The speakers of this variant live at the easternmost border of the Idaksahak territory in the Azawagh valley around Tamalet.

Pharyngealisation is much less prominent in the southern speech varieties (Infukaraytan), while it is very strong in the north (Talatayt). The clan around the former traditional tribal leader of the group, now settled in the Talatayt area, seems to be the most conservative, linguistically speaking. They use lexemes and forms no longer used elsewhere in the area. The groups around Menaka are reported to be the most innovative.

1.5   Fieldwork

I made a first trip to Menaka in the fall 1992 together with my husband Niels. The following year, we moved to this administrative town, and over a period of nine years, from September 1993 until December 2002, we spent fifty percent of our time there. We were first assigned to do further socio-linguistic studies to explore the viability of the language and the possible need for development of linguistic materials under the auspices of SIL International (former Summer Institute of Linguistics). A year later, the assignment was changed to language learning and documentation.

Since the literacy rate is very low in this group and since schools were virtually absent at the time we started our work, it was a challenge to find educated speakers with whom I was able to communicate in French.

The basis for this analysis consists of data from elicitation, as well as a corpus consisting of generally known folk tales, short dialogues and personal experiences and several hours of taped radio emissions

from "Radio Rurale de Menaka". The lexical data base was worked over twice in its entirety, once in the summer 2000 in Gao with the late Moussa ag Mohammed from Menaka, then agent of the *Service des Eaux et Forêts* and a second time in the fall 2002 in Menaka with Hadmahammed ag Mohammed, known as Ḥabəlla, originally from Ḥariya, now headmaster of the school in Inkiringia.

The textual transcriptions, based on tapes from other speakers, were made in collaboration with various Tadaksahak speakers. The National Institute for Literacy DNAFLA (former *Direction Nationale pour l'Alphabétisation Fonctionelle et Linguistique Appliquée*) did not have a section for this language, but I was in contact with both the Songhay and the Tamasheq unit.

1.6   Acknowledgements

2. Phonological Structure

2.1 Syllable Structure

In this section we describe the basic syllable patterns observed. In a word almost all consonants can occur in almost all positions. We do not give specifications here but discuss the restrictions under 2.2.3.

Tadaksahak has the following syllable structures:

(1)   *Syllable structure*

open syllables	closed syllables
CV	CVC
CVV	CVCC

In word-initial position, the onset may be absent, and vowel-initial syllables occur, e.g. *íiləs* 'tongue', *ákrar* 'ram'. Doubly closed syllables only occur in word-final position and always contain the feminine singular suffix *-t* as their final element, e.g. *tadábert* 'pigeon' (see 3.2.2). Long vowels only occur in non-final open syllables.

2.2 Consonants

2.2.1 Inventory of phonemes

There are 32 consonantal phonemes. The whole series of the alveolar consonants also appears pharyngealized. This feature is marked by a dot under the consonant. The signs are the orthographic representations used in this work. *c* and *j* represent [tʃ] and [dʒ] respectively, *y* represents [j] and *r* [r] On the table below, the letter 'v' indicates voicing, '-v' stands for voiceless and '+v' for voiced.

(2) Consonants

	Labial -v	Labial +v	Alveolar -v	Alveolar +v	Pharyngeal-ized -v	Pharyngeal-ized +v	Palatal -v	Palatal +v	Velar -v	Velar +v	Pharyngeal -v	Pharyngeal +v	Laryngeal
Stops		b	t	d	ṭ	ḍ	c	j	k	g	q		
Fricatives	f		s	z	ṣ	ẓ	ʃ	ʒ	x	ɣ	ħ	ʕ	h
Glides		w						y					
Laterals				l		ḷ							
Taps				r		ṛ							
Nasals		m		n		ṇ				ŋ			

2.2.2 Evidence for Consonantal Contrasts

Here are some examples of the different contrasting environments for the consonants as word initial, syllable initial, intervocalic, and syllable final where this position is possible. Contrast between same place of articulation with different voicing and adjacent points of articulations are given.

(3) Contrasts with consonants

C		gloss		gloss
b/m	*báy*	to know	*máy*	to own
	bún	to die	*mún*	to throw out
	abáktaw	old cushion	*amákṭaṛ*	leaving the well
	áblaɣ	chunk of earth	*ámlaɣ*	meat (kind of)
	alʒíb	pocket	*ajím*	thousand
b/f	*bér*	to be big	*fér*	to open
	bún	to die	*fún*	to pierce
	ʒiibíitan	dirt (pl)	*jíifatan*	corpses
	ábram	white turban	*áfraw*	feather / wing
	ṣə̣ṭəb	to put on a belt	*ṣə̣ṭef*	to spit
b/d	*báy*	to know	*dáy*	to buy
	bíibi	to be black	*biidí*	bone

	yibrár	to be bad	*yídraɣ*	to be decorated
	yírkəb	to pull	*yínkəd*	to sneak to
d/t	*dudú*	to pour	*tudú*	to respond
	bídaw	canister	*lítam*	turban (kind of)
	átri	star	*ádri*	crack in skin
	yífəd	to borrow (s.th.)	*yíbət*	to snatch
d/ḍ	*déləg*	to decorate	*ḍáləm*	to accuse unjustly
	éedag	place	*éeḍag*	herb, sp.
	adágar	part	*aḍágaḷ*	father-in-law
	anáfad	tobacco pouch	*aṇáfaḍ*	infection
d/j	*jinjí*	neck	*diŋgá*	forgetfulness
	tadábert	pigeon	*tajábert*	fonio, sp.
	cindí	part	*cinjí*	rain
g/k	*guná*	to see	*kuná*	to find
	guurú	metal	*kuurú*	leather / skin
	yígbəs	to wear	*yíkbəl*	support
	lətəg	waistcloth heaviness	*ṣə́ṭək*	to point
g/j	*geení*	head louse	*jeejí*	to hang up
	gíman	to be good	*jinán*	luggage
	ígitan	elevations (pl)	*ijíiman*	thousands (pl)
g/ɣ	*gáafa*	crime	*ɣáafaf*	striped polecat
	áagar	tree, sp.	*áaɣar*	straw, sp.
	agírid	granary	*aɣíri*	white spot (on dog)
	yírgəm	to be upset	*yírɣəm*	to warn
	yáhag	to last	*yáhaɣ*	to ransack
q/k	*qóq*	to be dry	*kós*	to cut
	ləqəm	to strengthen	*lə́kəm*	following (n)
	yíqbəl	to fulfill prayer	*yíkbəl*	to support
	abáaleq	dust	*t(a)séelək*	young woman
k/c	*karáy*	ball	*caráy*	friend
	keedí	be on	*ceedí*	spoon
	arkílla	mosquito net	*arcíni*	hyena
	sə́kiyki	try in vain	*təgmací*	alphabet
f/h	*fánfi*	pump	*hánfi*	dog
	alfáydat	importance	*səlhá*	make cry
	ífayan	edges	*íhayan*	descendants

s/z	*sə́rgəg*	to join (string)	*zə́rgəz*	to walk fast
	aɣásar	jumping on (n)	*aɣázar*	pond
	táslə̆ft	ax (kind of)	*tázlə̆ft*	eagle, sp.
	íblis	devil	*ágliz*	left over (n)
s/ʃ	*sə́rɣəd*	to appease	*ʃə́rɣəʃ*	to facilitate
	ássaɣal	fonio, sp.	*áʃʃaɣal*	work (n)
	tə́skənt	excrement (k.o.)	*tíʃkənt*	greeting
	afárɣas	tortoise	*ʃə́rɣəʃ*	to facilitate
s/ṣ	*sə́dəd*	to support	*ṣə́ḍəs*	to hit
	íssakan	nests (bird)	*íṣṣakan*	songs
	sə́bəs	to exhaust	*yíbbəṣ*	to chew
z/ʒ	*zə́zəl*	to drive	*ʒíʒil*	to draw water
	tamázaq	dispute	*tamáaʒaq*	Tamasheq
z/ẓ	*éezaw*	heron, sp.	*éeẓa*	grass, sp.
	yízgəg	to play around	*yíẓgəg*	to make accept
	yízləg	to carry on shoulder	*yíẓḷəg*	to search for (lost animal)
x/ɣ	*xúruru*	to have large holes	*ɣúruuru*	to rustle (dry leaves)
	axárxar	tearing apart (n)	*aɣárɣar*	barren plain
	yíxrək	to lose one's way	*yíɣres*	to cut straight
	yímsax	to sniff (water)	*yínsaɣ*	to whistle
x/ħ	*xátim*	pers. name	*ħád*	pers. name
	axáruk	creation	*aħákam*	reign (n)
	yíxdəm	to work	*láħdas*	lentils
	yímsax	to sniff (water)	*assáħ*	strength
ħ/ʕ	*alħál*	custom	*alʕár*	refusal
	aláaħit	wooden tablet	*aláʕan*	curse (n)
ħ/h	*ħáaʃi*	bone (kind of)	*hánʃi*	dog
	talmáħa	toy mat	*tasáhart*	lid (pot)
	alħál	custom	*álham*	anger (n)
w/b	*wá*	to be healed	*bá*	IMP(erative) particle
	áwwa	pers. name	*ábba*	daddy (voc.)
	ṭáw	to reach	*dáb*	to cover
w/y	*wáy*	woman	*yáy*	to be fresh

	yaawén	female camels	*yaayén*	freshness, pl
	aryén	water	*arwén*	men
	yáy	freshness	*yáw*	female camel
l/d	*lə́bək*	being skinny (n)	*də́bət*	to be able to
	ámlay	fatless meat	*ámdaɣ*	giraffe
	yél	green grass	*yéd*	to return
l/r	*yílmaɣ*	to dive	*yírmaɣ*	to be afraid
	yíɣləf	to entrust to	*yíɣrəf*	to span (drum)
	téefalt	coin	*téefart*	recompense
	áʒwal	mark	*áʒwar*	jujube fruit
l/ḷ	*ḷaabú*	clay	*labás*	to be dangerous
	éeḷab	pit (kind of)	*éelaw*	elephant
r/d	*ríiba*	profit (n)	*díidi*	to trample
	tərícin	saddles (k.o.)	*tədícan*	tent posts
	áwwur	shield (kind of)	*áwwud*	boil (n)
r/ɣ	*báara*	to be (in)	*báaɣa*	to want / to love
	ayə́ri	white spot (dog)	*ayə́ɣi*	crevice
	ámrar	rope (kind of)	*ámɣar*	old person
r/ṛ	*yíkrəm*	to fold	*yíkṛəm*	to rest (animals)
	ahára	potassium	*éefaṛa*	wind from south
	abákar	young ram	*fákaṛ*	to reveal
m/n	*maaní*	grease	*náani*	here (it) is!
	takámmart	cheese	*takánnart*	forehead
	adími	antelope, sp.	*adínit*	world
	eeʃám	fat (kind of)	*éeʃan*	tooth
m/w	*mə́nəɣət*	to wither	*wə́nənəg*	to walk about
	alámes	chick, sp.	*aláweg*	branch (kind of)
	áɣrəm	town	*áɣraw*	yoke (kind of)
n/ŋ	*na*	to give	*ŋa*	to eat
	kaŋ	to fall	*kan*	to be sweet
n/ṇ	*ánna*	mom (vocative)	*áaṇa*	shrub, sp.
	yaníd	to have a fever	*yaṇə́ṇ*	to be trained (camel)

2.2.3 Distributional Restrictions

In the following subsections we discuss distributional restrictions of
the different consonants. A type of consonant found 'in all positions'

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means that the positions 'word initial, syllable initial, intervocalic, syllable final and word final' are attested in our data. Consonant sequences are also discussed for the position 'syllable final'.

2.2.3.1   Labials b and f

/b/ and /f/ occur in all positions but in mono-morphemic lexemes /b/ is never found preceding voiceless stops (/t/, /k/, /q/). The voiceless fricatives /s/, /x/ and /h/ are found following /b/.

The voiceless/voiced distinction of the labials is realized as /b/ versus /f/. This is evident from the IMPERF prefix *b-* that assimilates in voicing to *f-* if the following C of the verb root is voiceless. Examples are found under (3.1.4.2).

Loanwords from e.g. French beginning with /p/ are regularly reinterpreted and pronounced *f* by speakers who do not know French, e.g. Fr. *porte-monnaie* 'purse' becomes *fartəmáani*, and Fr. *projet* 'project' is pronounced *faróʒe*.

2.2.3.2   Plosives

The only plosives that have restrictions in distribution are the affricates *c* [ʧ] and *ʄ* [ʤ]. We have no evidence of them in word-final or syllable-final position, except when they are part of a geminated consonant, as for example in *hijjí* 'piston'. The following examples illustrate alternations in which /c/ in syllable initial position before a front vowel alternates with /k/ before a back vowel or in syllable final position.

(4)   *Alternations between /c, j/ and /k, g/*

irkána	hyenas	*arcíni*	hyena
kúṛukud	to have shame	*takaṛácet*	shame
húgu	tent / house	*híjen*	tents / camp
gá	self	*jén*	selves
təzǝ́kwin	storms	*táazice*	storm
íhǝktan	tent awnings	*ahácet*	tent awning
yígmǝk	to spell (word)	*tǝ́gmaci*	alphabet

Further examples are under 3.2.3.1.1. with the plural morpheme.

/c/ and /j/ are restricted in their distribution at the lexical level. In stems, they do not occur preceding the back vowels /u/ and /o/. However, in actual speech, due to vowel deletion, /c/ and /j/ may appear before back vowels, e.g. the noun *cijí* 'night' can be followed by the demonstrative *óoda* 'this' meaning 'the night in question'. The rules for final vowel deletion lead to an allowed pronunciation [ciˈdʒoːda]. However, there exists another noun 'tonight' *cigóoda* composed of similar elements but frozen to an expression that is pronounced [ciˈgoːda].

2.2.3.3   Fricatives

In this group the sibilants (/s/, /ṣ/, /z/, /ẓ/, /ʃ/ and /ʒ/) have a status of their own. Sibilant harmony is discussed further under 2.4.1.4.

Fricatives are attested in all positions. Only ʕ and *h* do not occur word finally. This may be due to corpus limitations.

2.2.3.4   Nasals

We have evidence of all nasals in all positions. *m* is stable, whatever the following consonant.

(5)   *Examples with /m/*

mân	name
amánana	fish
ámɣar	old person
aṭṭáṛam	west

n and ṇ assimilate with the place of articulation of the following C. For more details see 2.4.1.1.

(6)   *Examples with /n/*

nín	to drink
ándi	you (pl)
anáf	high grass
aɣíiwan	tent camp
ṇákaṛḍaf	to wriggle
áṇayṇa	little bell
yíṇdəb	throw an arrow
éewaṇ	shrub, sp.

ŋ only occurs in a few lexical items. In syllable-final position it is pronounced [ŋg].

(7) *Examples with /ŋ/*

ŋa	to eat
amássaŋŋa	cook (person)
tiŋlíst [tɪŋˈlist]	English
káŋ [kæŋg]	to fall

2.2.3.5 Liquids

The liquid *l* is found in all positions.

(8) *Examples with /l/*

lém	to twist
yíli	to leave
álkas	(tea) glass
áɣlal	portable trough

We have not found any examples of the pharyngealized liquid *ḷ* in syllable-final position except as part of a geminate.

(9) *Examples with /ḷ/*

ḷáabu	clay
bə̣ṣṣaḷḷi	onion
éeḷab	pit, sp.

2.2.3.6 Taps

r is rarely found word-initially. There is a clear preference by the speakers to add a vowel before the flap. The French word 'radio' is taken over as *aragó*.

(10) *Examples with /r/ and /ṛ/*

ríiba	benefit (< Arabic)
arádaɣ	old goat
argán	male camel
ábrug	resin (kind of)
báarar	child
ṛíiṛi	to expand (tent)

fə́rfə̣r	to rub foot on camel's neck
yíkṛəm	to rest
fákaṛ	to reveal

Long *r* is pronounced as a trill, e.g., *báarar* ['bæːrar] */ barrén* [baˈren] 'child / children'.

2.2.3.7   Glides y and w

Both are found in all environments and can be geminated.

   (11) *Examples with /w/ and /y/*

wa	to heal
awíci	bracelet
Awwa	personal name
áwrum	pit of jujube
waw	to curse
yaw	female camel
ayyár	moon / month
yaynáy	to be new
caráy	friend

2.2.4 Consonant clusters

2.2.4.1   Word initial clusters

The word initial cluster 'nasal' + 'C' that is allowed in Mainstream Songhay is not found in Tadaksahak. The Songhay word /nda/ 'and / with' is pronounced *ənda* 'and / with' in Tadaksahak.

Other word initial clusters are not allowed either. When necessary, an epenthetic vowel is added preceding the cluster. This is for example the case in clauses with verbs that have no pronoun enclitic, as in indefinite relative clauses, e.g., *surgóy əb꞊dút* 'a woman (who is) pounding'

Loans from languages with initial consonant clusters are resyllabified to conform to the system, e.g., *baruwét* 'wheelbarrow' < French: 'brouette' [bruɛt] or *faróʒe* 'project (n) < French: 'projet' [prɔʒɛ].

2.2.4.2 Clusters with different consonants

Word-internal clusters with different consonants are very frequent. Basically all consonants can follow each other. Only very few combinations are not attested (see also Nicolaï 1979). One partial restriction of /b/ is discussed in 2.2.3.1 while clusters with /c/ and /j/ are discussed in 2.2.3.2.

2.2.4.3 Long consonants

All consonants can be geminated, with the exception of /χ/, /h/ /ʕ/ and /ħ/. Long consonants are analyzed as a succession of two identical consonants. We give here a few minimal pairs:

(12) Minimal pairs with long consonants

lexeme	gloss	lexeme	gloss
yíli	to go out	*yílli*	to soar (bird)
iməḍan	pastures	*iməḍḍan*	tears
təbət	to be stolen	*təbbət*	to knock
yíṇəṣ	to hobble, (one-sided)	*yíṇṇəṣ*	to pull away (with teeth)
albána	sickness (kind of)	*albánna*	bricklayer
híjen	camp	*hijjén*	pistons
yízəḷ	to pay	*yízzəḷ*	to stretch out
iháran	herds (small animals)	*íharran*	lions
baarén	horses	*barrén*	children

Consonantal length is independent of stress, as shown in the table below.

(13) Long consonants and stress

lexeme	gloss	CV pattern with stress
áɣalla	wall	V́.CV**C.C**V
mammaní	odor, perfume	CV**C.C**V.CV́
hillí	horn	CV**C.C**V́
hurrú	to look for	
korrá	heat	

2.2.4.4   Word-final clusters

The only clusters allowed word-finally contain the consonant /t/ as their last element. This consonant consists of the second part of the discontinuous morpheme *t(a)-…-t* ('feminine / diminutive / nominalizer'). See (3.2.2.1.1) for details.

(14)   *Word final consonant clusters with* /-t/

talánkawt	tail
tadáryalt	blind person
tabáyort	riches
tabáremt	reed, sp.

2.3 Vowels

2.3.1 Inventory of Vowels

The following chart lists the main phonetic realizations found in Tadaksahak vowels.

(15)   *Vowel chart (phonetic)*

	short				long	
high	i		u	iː		uː
high lowered	ɪ					
mid-high	e	ə	o			oː
mid-low	ɛ	ʌ	ɔ	ɛː		ɔː
low	æ	e / a / ɑ		æː	aː	

As will be shown below, these can be analyzed as realizations of the following vowel phonemes:

(16)   *Vowel chart (phonemic)*

	short				long	
high	i		u	ii		uu
mid-high	e	ə	o	ee		oo
low		a			aa	

2.3.2 Evidence of Vocalic Contrasts

The vocalic contrasts are proven by the following examples of stressed vowels in similar environment. When no stressed vowels were attested, unstressed vowels are presented. The first section contrasts short vowels with each other.

(17) Short vowel contrast

V	lexeme	gloss	lexeme	gloss
i/e	danjí	charcoal	danjé	silence
	bí	yesterday	be	on (PP)
	dis	to leave alone	les	make dirty
i/ə	dis	to leave alone	dázdəz	to castrate (kind of)
	áabit	chaff, sp.	éebət	taking quickly (n)
	alíkaf	horse saddle	iləktan	branches
	aʃʃífit	rope (saddle)	dágəffət	to give a light hit
	táddabit	night without moon	kə́rəbət	be joined
i/a	ígaẓan	cheeks	agáẓaw	cheek
	ízzay	son / fruit	ázanzo	milk (kind of)
	alíkaf	horse saddle	alákat	twig
	didá	to walk	tabá	to taste
i/u	dis	to leave alone	tus	to erase
	hiná	to cook	hunán	to leave
	didá	to walk	dudú	to flow
i/o	dis	to leave alone	dos	to touch
	aɣə́ɣi	crevice	anóɣo	sickness of skin
e/ə	tafáɣert	oval receptacle	taɣéeɣərt	dried wood
	tadábert	pigeon	támbərt	grazing in the night (n)
e/a	héw	to cry	háw	to attach
	ténada	fever	tanáfrit	suffering
e/u	fér	to open	fúr	to throw

e/o	*lés*	to make dirty	*dós*	to touch
ə/a	*lə́bək*	meager (n)	*tə́ffak*	tomorrow
	tə́ffak	tomorrow	*táafart*	rope (kind of)
ə/u	*tənə́fas*	sprinklings	*tənúfas*	stories
	kərtə́ba	trousers	*tugúdu*	tree, wood
ə/o	*sə́gən*	to kneel down	*sóɣon*	to hobble (knee)
	də́zdəz	to castrate (kind of)	*dós*	to touch
	tə́ga	to be taken	*toogá*	T-shirt
a/u	*áɣlal*	portable trough	*áɣlul*	eternity
	zaná	to churn (milk)	*zurú*	to run
	guná	to see	*hunú*	to leave
a/o	*tarákat*	shrub, sp.	*taródayt*	fruit, sp.
	agádod	old waterskin	*akóko*	tree, sp.
	báq	to break	*qóq*	to be dry
	amáɣo	part of the turban	*anóɣo*	skin disease
	zará	lizard, sp.	*borá*	person
u/o	*tús*	to erase	*dós*	to touch
	guná	sight	*borá*	person
	yúhu	to be born	*yóṛu*	to be worn
	kurúkuru	to burn	*korókoray*	to be very white

The evidence for short /e/ is relatively weak since there are only few lexemes with /e/ on the whole, and /e/ is especially rare in open syllables. Consider the examples below under /ee/.

(18) *Long vowel contrasts*

V		gloss		gloss
i/ii	*íbatan*	chaff, sp.	*íibatan*	losses
	ízzay	son	*íiʒi*	fly
	ikádan	fireplace	*íikaran*	puppies
	cijí	night	*ciidí*	salt

e/ee	*ténada*	fever	*téeraɣ*	sweat
	təzárcetan	rolled leather strings	*kéreeri*	to be hanging
	ilánjezan	drums (kind of)	*tadǽgeera*	cheese racks
ee/aa	*éenar*	antelope, sp.	*áanar*	eyebrow
	éeɣar	cooking pot	*áaɣar*	straw of cram-cram
	heebú	market	*haabú*	hair
a/aa	*tabá*	to taste	*táaba*	tobacco
	áɣaba	bit	*áɣaata*	monitor lizard
	tamázaq	dispute	*tamáaʒaq*	Tamasheq
	abánaw	grass, sp.	*abáaleq*	dust
aa/oo	*áarab*	Arab	*óoraɣ*	flame
	baaʃí	waterbag	*booʃí*	ashes
	abáaleq	dust	*abóoraɣ*	date fruit
	áɣaata	monitor lizard	*áɣoora*	1-3am
u/uu	*imúṇas*	camels	*imúuṇas*	hobbled animals
	hunú	leaving (n)	*huurú*	fire
	búkut	to pound	*búuɣu*	working together (n)
	guná	sight	*guurú*	iron
uu/oo	*úuraɣ*	gold	*óoraɣ*	flame
	huurú	fire	*tooká*	ashes (kind of)
	amúudər	animal	*abóoraɣ*	date fruit
	arúuru	back (body part)	*aróoko*	saddle (kind of)
o/oo	*borá*	person	*booráɣ*	giraffe
	takóṭayt	cow hump	*takóokayt*	fruit (doum tree)
	akóko	tree, sp.	*aróoko*	luggage saddle
	koká	baobab powder	*tóodat*	humid soil

With the mid vowel /o/ - /oo/, the evidence for a phonemic length contrast is rather weak. In open syllables the long mid vowels are much more frequent than their short counterparts. In addition to the forms given above, one may cite the following cases: *igóriʒən* 'black solution'; *tafógit* 'metal point of sheath'; *sogá* 'to indicate', *borá* 'person'; *iʒámolan* 'marks of recognition'; *komáami* '(walk) with bent neck (camel)'.

2.3.3 Vowel Realizations

Pharyngealized consonants, as well as uvular and pharyngeal consonants (*x, ɣ, q, ʕ* and *ħ*) influence the realizations of the vowels. This is most evident in the case of /a/. In a word with a pharyngealized consonant, it is lowered and retracted to be realized [ɑ], e.g. [ɐnéfɐd] 'tobacco pouch' <> [aṇáfɑḍ] 'infection'.

Similarly,	/i/ is lowered	to [ɪ] or [e]
	/e/	to [ɛ]
	/a/	to [ɑ]
	/o/	to [ɔ]
	/u/	to [o]
	/ə/	to [ʌ]

The vowel /a/ shows the widest range of realizations. For more details see under 'Influence of palatals on /a/' (2.3.3.1) and examples in the texts. On the whole, unstressed vowels tend to be pronounced as more central and lax so that their quality is not always clear in rapid speech. Yet asking the speaker to slow down will render full Vs where schwa was perceived beforehand.

Examples:

[bǽ:rər]   *baarar*   'child'

[ɔ́:də]   *ooda*   'this'

Nicolaï (1979a:342) comments on this fact saying that "Il semble que l'importance et la netteté de réalisation des unités du système consonantique soient corrélatives d'une certaine labilité dans les réalisations des phonèmes vocaliques…".

The realization of schwa is strongly dependent on the phonetic context, e.g. *ni̱-m-s-ә́/әl̩-i* [nɪmˈsɪlɪli] 'that you make them follow'.

The same speaker may pronounce the same utterance with different V qualities. A request to repeat will often produce a different V 'color' in slower speech. The following example is given in rapid speech: *i̱-b-údu-an* [iˈbәdʷan] 'they assembled there'.

The least conspicuous environment for good quality vowels is word or utterance final in open syllables where the realizations are short and plain, i.e., with no possible variation.

2.3.3.1   Palatals preceding and following /a/

The palatal phonemes /c/, /j/ and /y/ (Y) have a strong influence on the realization of a following /a/ in a closed syllable of a monosyllabic root. The phonetic difference between /a/ and /e/ is neutralized in this position, and are realized [ɛ].

> (19)   Neutralisation of /a/
>
> /YaC/, /YeC/ → [YɛC]

The underlying /a/ reappears when the addition of a morpheme allows the syllable to be opened. Notice that in all examples below also the rule 'long V shortening in closed syllable' (see 2.4.1.9) is in effect. Consider the following:

> (20)   Realization of /a/ following palatal Cs

singular	plural		gloss
[ˈjɛw]	[jaːˈwɛn]	*yáw*	'female camel'
[ˈtʃɛw]	[tʃaːˈwɛn]	*cáw*	'call'
[ˈdʒɛw]	[dʒaːˈwɛn]	*jáw*	'help'

Compare, with undelying /e/: *héw* 'wind': singular [ˈhɛw], plural [hɛːˈwan].

A syllable that is closed by /y/ also neutralizes the phonetic realization of /a/, i.e. /Cay/ → [Cɛy]. The following examples show that this rule pertains both to words with a Songhay and to words with a Tamasheq background.

(21) *Realization of /a/ preceding /y/ (Songhay cognates)*

singular	plural		gloss
[ˈzɛj]	[zaːˈjɛn]	*záy*	'theft'
[ˈjɛj]	[jaːˈjɛn]	*yáy*	'freshness'

Etymologically Tamasheq nouns also follow the rule that /a/ is pronounced [ɛ] when followed by /y/. The following examples show the nominalization pattern /aCaCaC/ for two verbs with three consonants in the root. 'to fill' has a final /y/ in the root that provokes the different pronunciation of /a/.

(22) *Realization of /a/ preceding /y/ (Tamasheq cognates)*

noun	phonetic	verb	gloss
aḍánay	[aˈḍɑnɛj]	*< ḍánəy*	action of filling
adálag	[ɐˈdɐlɐg]	*< dáləg*	decoration

2.3.4 Vowel Distribution

There are some restrictions on the occurrence of vowels according to the syllable type they are found in, and their position in the word.

In the first place, long vowels only occur in non-final open syllables. In closed syllables and in word-final position, only short vowels are allowed.

In the second place, schwa cannot occur word-finally.

As shown in the following chart, there are hardly any restrictions on combinations of vowel qualities in one word. One remarks gaps as concerns the combination of two mid vowels (/e/, /o/). As the mid vowels are relatively rare, this may be accidental. The combination /u/ - /o/ is only found in two borrowings from French, *fúrno* 'brazier'(< 'fourneau') and *bússol* 'compass' (< 'boussole'). The combination /o/ - /o/ is only attested in borrowings from sedentary Mainstream Songhay: *róogo* 'yams', a food not traditionally planted by the nomads, *sóoro* 'storey' (unknown for tents), also *góoro* 'cola nut' is not part of the nomadic culture.

(23) *Possible combinations of V₁ and V₂ in words*

V₂ V₁	i	e	a	ə	o	u
i	*ciidí* salt	*hillén* horns	*didá* walk	*íiləs* tongue	*ibóoraɣan* fruits, sp.	*ʃíʃu* make drink
e	*feejí* sheep		*ténada* fever	*aɣéeɣər* dried meat		*éesu* bull
a	*baarí* horse	*danjé* silence	*qaarán* study	*ahə́gəg* pilgrimage	*agóogis* braid (kind of)	*abútu* navel
ə	*mə́ṭṭi* change	*bə́llen* wrestle	*kərtə́ba* trousers	*də́bət* be able	*sə́foɣfoɣ* to click	*agə́rəfu* kneeling
o	*booʃí* ashes	*borén* people	*goorá* sit	*zórbəba* fruit, sp.	*góoro* cola nut	*óoruf* acacia, sp.
u	*wulíiwuli* carry sth. by two	*áaguder* eagle, sp.	*túuragat* permission	*wulə́twulət* bend in the wind	*fúrno* brazier/grill	*gussú* hole

2.4 Sound rules

2.4.1 Consonants

2.4.1.1   Assimilation of place of articulation of /n/

/n/ regularly assimilates with the point of articulation of the immediately following C. This rule applies inside a lexeme as well as between words in a phrase or clause. Consider the following examples with assimilated forms in the verb stem and forms without assimilation in the corresponding verbal nouns.

(24) *Assimilation of /n/ within lexeme*

phonetic	verb stem	verbal noun	gloss
[ˈjɪmbaɣ]	*yínbaɣ*	*anábaɣ*	hit on the cheek

[ˈjɪɱfaɣ]	*yínfaɣ*	*anáfaɣ*	provide
[ˈjɪntəz]	*yíntəz*	*anátaz*	pull strongly
[jɪŋˈkaḍ]	*yinkáḍ*	*anákaḍ*	circumcise

This assimilation rule is also in force at word boundaries. The GEN(itive) postposition *n* is a good illustration

(25) *Assimilation of genitive n over word boundaries*

possessive pronoun + noun	gloss
aɣa꞊m báarar	my child
aɣá꞊m farká	my donkey
aɣa꞊n táŋgud	my girl
aɣá꞊ɲ caráy	my friend
aɣá꞊ŋ karfú	my rope
aɣá꞊ŋ way	my wife
aɣá꞊ɴ qaarán	my studies

2.4.1.2 Nasalization in the vicinity of /n/

When followed by a sibilant, /n/ is mostly realized as nasalization of the preceding vowel, e.g.

(26) *Nasalization when /n/ precedes a sibilant*

phonetic		gloss
[ˈyĩːṣi]	*yíṇṣi*	to beg
[aˈɣaʃĩːʃa]	*aɣáʃinʃa*	bone (kind of)
[ˈgɔ̃ːʃi]	*gónʃi*	snake
[ˈmãːzarnat]	*mánzarnat*	bright green leather
[aˈtæ̃ːʒi]	*atánʒi*	snack

2.4.1.3 Devoicing of voiced fricatives

Due to regressive assimilation, voiced fricatives are devoiced when followed by a voiceless consonant, cf. the following examples with /ɣ/.

(27) *Devoicing of /ɣ/ lexeme internal*

phonetic	verbal noun		gloss
[ˈjɪxsər]	*yíɣsər*	*aɣásar*	to jump down on / jumping down on
[ˈjɪxʃid]	*yíɣʃid*	*aɣáʃad*	be ruined / accident

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['jɪxfəl]   *yíɣfəl*   *aɣáfal*   be locked / locking

Similarly, the element *aɣ-* (first person singular subject ciltic) is pronounced [ax] when preceding a Mood-Aspect-Negation morpheme starting with a voiceless consonant.

(28) *Devoicing of /ɣ/ at morpheme break*

phonetic	morpheme		gloss
[axsəˈwi]	*aɣ=sə-wí*	1s=NEG.IMPERF-kill	I won't kill
[axtəˈwi]	*aɣ=tə-wí*	1s=FUT-kill	I will kill

Cf. the perfective negation *nə-*, before which *ɣ* is retained.

[aɣnəˈwi]	*aɣ=nə-wí*	1s=NEG.PERF-kill	I did not kill

A special case is provided by the imperfective morpheme IMPERF *b-* , which becomes a voiceless fricative /f/ when followed by a voiceless consonant. Find the examples under (3.1.4.2).

2.4.1.4   Sibilant harmony

We have not found mono-morphemic words that contain two different sibilants (/s/, /z/, /ṣ/, /ẓ/, /ʃ/, /ʒ/). Place of articulation and voicing of these sounds are the same within the word.

(29) *Examples of sibilant harmony*

	gloss
azágaz	wild cat (Felix silvestris)
ázanzo	milk (kind of)
áaẓəẓ	vulture, sp.
aẓámmaẓṛa	bee-eater, sp.
afásas	stick of Calotropis procera
alxasáyis	amulet (kind of)
faṣúṣ	to be light (not heavy)
aṣáaṇəṣ	rope (kind of)
áʃʃaʃ	turban (kind of)
kəʃʃiʃin	to be coarse
aʒáaʒib	phantom
ʒíʒil	to draw (water from well)

Sibilant harmony also applies to loanwords from French originally containing different sibilants. In such loans, harmony of the sibilants is regressive and the last sibilant in the word enforces the preceding sibilants, e.g. *ʃakóʃ* 'army bag' (< *sacoche*), *sosét* 'socks' (< *chaussettes*).

Sibilant harmony in causative derivations will be treated under (3.1.3.2.).

2.4.1.5   Irregular loss and assimilation of /-k/

Two frequently used verbs show irregular loss or assimilation of /k/. The first example is *yéekat* (< *yed* + *-kat*) 'to return here'. The second example is *yíkkəl* (< *yídkəl*) 'to lift up'. The original consonants are found in the verbal noun *adákal* 'elevation'.

2.4.1.6   Optional consonant metathesis

In a few words optional consonant metathesis has been observed. When asked about it, speakers would invariably claim that both words mean the same and either could be used.

(30) *Examples of metathesis*

mə́ɣrəs ~ mə́rɣəs	keep the character of
táɣrast ~ tárɣast	kind of white stone found in the region of Kidal
záɣraf ~ zárɣaf	to have big spots (for sheep, goat, camel)
irə́dɣan ~ irə́ɣdan	old weak goats (sg *arádaɣ*)
táɣhast ~ táhɣast	kind of camel saddle

Other words with the similar consonant combinations like *zaɣrí* 'day', *áɣraw* 'kind of yoke', *áɣrəm* 'town, village' *áɣri* 'aborted animal' do not have variants with metathesis.

Another case of optional metathesis is found with the verb 'to respond' *wáʒab* which is also heard as *ʒáwab*.

2.4.1.7   Long consonants at morpheme boundaries

In a number of contexts, morpho-phonological consonant lengthening takes place in intervocalic position at morpheme boundaries. It is not entirely clear what role is played by stress and both lexical stress and noun phrase intonation sometimes seem to have influence on consonant lengthening. The morphemes concerned are the genitive

n, the Mood-Aspect-Negation markers *m-* and *b-* and the particle *ag* 'son of'. Moreover, lengthening takes place with the initial consonant of a verb in the unmarked perfective aspect.

2.4.1.7.1   n 'genitive' and ag 'son of'

When the genitive marker *n* occurs in intervocalic position, this consonant is lengthened.

(31) *Intervocalic genitive* n

borá	*nn*	*áa-ɣil*	'at the right hand side of a
person	GEN	SG-right.side	person'
húgu	*nn*	*ámmas*	inside a tent
tent	GEN	interior	
aɣó	*nn*	*a-ffóo-da*	that (only) one
DET	GEN	SG-one-DIC	

This also applies to the possessive pronouns *ni̱=n* 'your' and *i̱=n* 'their' when followed by a vowel-initial noun.

(32) *Possessive pronoun*

ní=nn	*a-náarag*	your spouse
2s=GEN	SG-neighbour	
í=nn	*i-náarag-an*	their spouses
3p=GEN	PL-neighbour-PL	

The shape of the two first person possessive pronouns prompts for other changes (2.4.2.4). *ay=n* 'his/her/its' and di-syllabic *andə=n* 'your(pl)' do not undergo lengthening.

The particle *ag* 'son of' used in personal names behaves the same way, i.e., /g/ is lengthened before vowel initial names, e.g., *agg Abdulay* 'Son of Abdulay'.

2.4.1.7.2   Mood-Aspect-Negation markers and unmarked perfectives

When preceded by a vowel, the Mood-Aspect-Negation markers *b* 'imperfective' and *m* 'subjunctive' are lengthened. This is found, among others, when they are – as is normally the case – preceded by a pronoun clitic.

(33) *Imperfective* b- *lengthened*

[aɣaˈbːəgməm]   *aɣa=bb-ə́gməm* 'I chew (tobacco)'
[nɪˈbːəgməm]   *ni=bb-ə́gməm* 'you chew (tobacco)'
[aˈbːəgməm]   *a=bb-ə́gməm* 's/he chews (tobacco)'

(34) *Subjunctive* m- *lengthened*

[aɣaˈmːəgməm]   *aɣa=mm-*   'that I chew
                ə́gməm   (tobacco)'
[nɪˈmːəgməm]   *ni=mm-ə́gməm*   'that you chew
                (tobacco)'
[aˈmːəgməm]   *a=mm-ə́gməm*   'that s/he chews
                (tobacco)'

More discussion on these morphemes is found under 3.1.4.2.

In positive perfective forms, where there is no overt Mood-Aspect-Negation marker, the initial consonant of the verb stem is lengthened under the same circumstances.

(35) *Initial consonant of verb lengthened*

[aɣaˈdːəbəta]   *aɣa=ddə́bət=a*   'I can do it'
[nɪˈdːəbəta]   *ni=ddə́bət=a*   'you can do it'
[aˈdːəbəta]   *a=ddə́bət=a*   's/he can do it'
[aɣaˈjːɪbəta]   *aɣa=yyíbət=a*   'I snatched it'
[nɪˈjːɪbəta]   *ni=yyíbət=a*   'you snatched it'
[aˈjːɪbəta]   *a=yyíbət=a*   's/he snatched it'

With monosyllabic stems that carry the stress on the only syllable of the verb, this lengthening appears very strongly. With very long verbal stems, and disyllabic stems with the stress on the second syllable, it appears to be less strong.

Verb stems preceded by vowel final elements, e.g. the focus marker *nə-*, the determiner *aɣo* and the question word *ci* ('what/who'), show the same effects as observed with the subject pronoun clitics.

(36) *Other contexts that provoke consonant lengthening*

áŋga   nə-yyíddər=a   It's him who held it.
3s.EMP FOC-hold=3s
áŋga   nə-bb-ə́ddər=a   It's him/her who holds it.

3s.EMP FOC-IMPERF-hold=3s

| *aɣo yyáhag-an* | the one that lasted |
| DET last-ADJZR | |

| *surgóy aɣo bb-ə́ddər* | the woman he is married to |
| woman DET IMPERF-hold | |

| *cí   wwí=a* | Who killed him/her/it? |
| what/who kill=3s | |

| *cí   bb-ə́ddər=a* | Who is married to her? |
| what/who IMPERF-hold=3s | |

2.4.1.8   Word-final V-shortening

In word-final position the contrast of vowel length is neutralized. The following examples illustrate this point. Adding the plural morpheme permits the realization of what could be considered an underlying long V:

(37) Word final V-shortening

V	singular	plural	gloss
I	*bitígi*	*bitigíitan*	shop (< Fr 'boutique')
	ħáaʃi	*ħáaʃitan*	bone (kind of)
E	*fəṛḍəḍḍé*	*fəṛḍəḍḍéetan*	bat
	íizace	*izácenan*	youth
A	*tə́gna*	*təgnáatin*	reproach
	kərtə́ba	*kərtə́batan*	trousers
U	*heebú*	*heebúutan*	marketplace
	bukturú	*bukturútan*	toad
O	*kádago*	*kadagóotan*	tree, sp.
	aróoko	*aróokotan*	saddle (kind of)

Note that in all the examples above the stress lies on the long V, even when the singular had the stress on another V. This may have some influence on the length also.

2.4.1.9   *V-shortening in closed syllables*

Vowel length is neutralized in closed syllables. The underlying length of the vowel shows up when the plural morpheme is suffixed and the formerly final closed syllable is opened.

(38) *V-shortening in closed syllables*

singular	plural	gloss
tafágit	*təfágiitan*	metal point of sheath
ajím	*ijíiman*	a thousand
aláteḍ	*iləteeḍan*	rib / side
ahácet	*iháceetan*	tent awning
tadágat	*tədágaatin*	place of pasture
abákaḍ	*ibákaaḍan*	sin

Some rare occurrences of long vowels in closed syllables can be explained as due to consonant elisions. Often the lost consonant re-appears in a morphologically changed form.

(39) *Long vowels in closed syllables*

lexeme	gloss	plural	Tamasheq cognate
abóoɣ	water skin	*ibíyaɣ*	(< W: abăyoɣ/ibəyaɣ)
aníil	ostrich	*iníyal*	(< W: anil/inəyal)
akáat	mistletoe, sp.	*akáwat* variant of the same	(< W: akăwăt)

2.4.1.10   *Vowel contractions*

There are several cases of vowel contractions over word or morpheme boundaries. We will illustrate this in the following section in situations with a) verb and pronoun enclitic; b) suffixes on verbs; c) plural morphemes on nouns; d) noun and demonstrative; e) V-initial nouns preceded by V-final words.

The overall rule of vowel constractions is as follows:

(40) *Vowel contraction rule*

$V_1\# + V_2 \quad \rightarrow \quad V_2$

The outcome of the contraction is a short vowel when V_2 is short and a long vowel when V_2 is long. We will treat the different occurrences in detail and then make some amendments to this first general rule.

2.4.1.10.1 Verb and pronoun enclitic

The most regular and frequent elision happens at the end of V-final verbs when personal pronouns follow the verb. In this case, the final V of the first word is dropped.

(41) a) *a꞊ddumb(ú)꞊a.*   [adːumˈba]
      3s꞊cut꞊3s
      he killed it.

    b) *a꞊ddumb(ú)*   *áari* *hé.*   [adːumˈbæːriˈhe]
      3s꞊cut   1p   thing
      he killed something for us.

    c) *a꞊ddumb(ú) íi꞊se*   *feejí*   [adːumˈbiːs(ə)fɛːˈdʒi]
      3s꞊cut   3p꞊DAT   sheep
      he killed a sheep for them.

In the transcription in this work we will write the dropped final V in brackets.

Verbs that drop the last vowel all have a Songhay background.

(42) *Verbs dropping final /u/*

Tadak	gloss	Songhay (KCH)	
dudú	to pour	door	
hunú	to leave from	hun	
tunú	to get up	tun	
hurrú	to look for	wir	
dumbú	to cut	dumbu	
guŋgú	to guide (animal)	gurje	
húuru	to enter	huru/a	(KS)
zumbú	to get down	zumbu	(KS)
zurú	to run	zuru	(KS)

/u/-final Verbs of Tamasheq origin seem to have an underlying /w/ that is normally realized as /u/. These verbs do not drop the last vowel when followed by a pronoun, but change it into a glide before the pronoun.

(43) *a₌b-ʃúgu*   *áa₌ka*   [abˈʃuguᵂaːka]
     3s₌IMPERF-look.down   3s₌LOC
     s/he looks down on it.

The following verbs behave the same way:

(44) *Tamasheq cognates surfacing /w/*

Tadaksahak	gloss	Tamasheq (W)	
ʃíʃu	to make drink	ʃăʃwu	
ʃídu	to assemble	ʃidəw	
ʃúgu (he) ka	to look down on (sth.)	ʃugu	(WW)
súku	to light (fire)	suku	(WW)

Parallel to the back vowel /u/, the front vowel /i/ behaves differently according to etymology. Songhay cognates drop the final /i/ while Tamasheq cognates surface a semi-vowel /y/ when a pronoun follows.

(45) *Verbs dropping final /i/*

Tadak	gloss	Songhay (KCH)
keedí	to mount (animal)	kaar
yéeri	to vomit	yeer
diní	to take	din
jeejí	to hang	deeji

(46) *Tamasheq cognates surfacing /y/*

Tadak	gloss	Tamasheq (W)
yírẓi	to stick sth. into	ərẓəy
yíɣli	to go / turn around	əɣləy
yínṣi	to beg	anṣəy
yílbi	to take out of	əlbəy

Final /e/ and /o/ on verbs are so rare that not many observations can be reported for these vowels. See below for *mó* 'hear' (other items: *babó* 'be numerous', *sotóroro* 'drop regularly').

Verb-final /a/ is dropped both in verbs of Songhay and in verbs of Tamasheq origin. For example, when the plural clitic *=i* is added to these verbs the final /a/ is dropped. The stress of the final syllable of the verb is carried over to the pronoun enclitic, e.g.

(47) *a=kkun(á)=i*   s/he found them.

   a=ʒʒil(á)=i   he cleaned them (wells) out

(48) *Verbs dropping final /a/*

Tadak	gloss	*etymology*
guná	to see (s.b.)	KCH: guna
habá	to harvest (wild grass)	KCH: haabu 'gather'
báaɣa	to want / to love	KCH: baa
hiná	to cook	KCH: hina
kuná	to find	KCH: kumna 'pick up'
ŋá	to eat	KCH: ŋaa
yeezá	to skin (animal)	W: azu 'to skin'
yismá	to clean (intestines)	W: asəm̩ 'clean by rubbing'
zaaná	to churn (butter)	D: əss-unda 'churn' W: azənu 'calabash to churn butter'
ʒilá	to clean out (well)	D: əšla 'clean out (well)'

One notes, however, one complication, When the second element is the enclitic *=a* 'he/she/it', forms with and without the enclitic are pronounced differently. The forms without the enclitic have a final unreleased glottal stop, while those with the enclitic don't, cf.

(49) *a=ddá*[ad:ǽʔ˺]   it is done!

   a=ddá=a   [ad:ǽ]   s/he did it.

In a running text it is not easy always to hear the 3s pronoun. In some of our transcriptions we note the possibly present pronoun in brackets with a question mark (=a?).

2.4.1.10.1.1   Monosyllabic stems

Vowel-final monosyllabic verbs present different behavior as to their final vowel when followed by a vowel-initial element. Note that all these verbs have a Songhay background. In a first group, the vowel is deleted according to the general rule. This is found in three verbs, *da* 'to do', *ŋa* 'to eat', *na* 'to give', and *ci* 'to say', e.g.

(50) *Deletion of final -a in* na *'to give'*

	verb + 1s	+3s
phonetic	[anːaˈɣaj…]	[aˈnːæːs(e)…]
	a꞊nn(a) aɣáy	*a꞊nn(a) áa꞊s(e)*
morphemes	3s꞊give 1s.IO	3s꞊give 3s꞊DAT
gloss	s/he gave me...	s/he gave him…

(51) *Deletion of final -i in* ci *'to say'*

	verb + 1s	+3s
phonetic	[acːaˈɣaj]	[aˈcːæːs(e)]
	a꞊cci aɣáy	*a꞊cci áa꞊se*
morphemes	3s꞊say 1s.IO	3s꞊say 3s꞊DAT
gloss	s/he said to me	s/he said to him

In a second group, all concerning *i*-final verbs, the vowel is maintained and a palatal glide is inserted. This concerns the verbs *wi* 'to kill', *ʒi* 'to kick', and *ʃi* + PRN *ka* 'to be lost to somebody'.

(52) *No deletion of final -i in* ʒi *'to kick'*

	verb + 1s	+3s
phonetic	[aˈʒːiʲaˈɣaj]	[aʒiːˈʲa]
	a꞊ʒʒí aɣáy	*a꞊ʒʒi꞊á*
morphemes	3s꞊kick 1s	3s꞊kick꞊3s
gloss	s/he kicked me	s/he kicked him

Finally, the verb *mo* 'to hear' keeps its vowel in all contexts except with the 3p pronoun *i*, e.g.

(53) *Treatment of final -o in mo 'to hear'*

	verb + 1s	+ 2s
phonetic	am:o'ɣaj	a'm:o:na
	a=mmo (a)ɣáy	*a=mmó (a)na*
morphemes	3s=hear 1s	3s=hear 2s.DAT
gloss	s/he heard me	s/he heard you

	+3s	+3p
phonetic	a'm:o:s(e)	a'm:i:s(e)
	a=mmó (aa)=s(e)	*a=mm(ó) ii=s(e)*
morphemes	3s=hear 3s=DAT	3s=hear 3p=DAT
gloss	s/he heard him	s/he heard them

It will be shown later (2.4.1.10.5) that /o/ also overrides vowels of other morphemes.

2.4.1.10.2 Noun and demonstratives *asénda, áyda, adí, óoda*

Following the general rules of vowel-coalescence, vowel-final nouns that are followed by one of the determiners beginning with a vowel regularly lose their final vowel in favor of the vowel of the determiner.

(54) *Iizac(e)   asénda   zá,   aɣo ḍḍə́ṛəṣ ay=n   hawrú…*
          ['i:zaʧa'sɛndə…]
          youth   DEM.FAR   LC   DET spice 3s=GEN meal…
          so that young man who spiced his meal…

(55) *andə=gguná   gand(a)   áyda… [gan'dɛjdə]*
          2p=see   land   DEM.PROX
          you(pl) see this land (here)…

(56) *ni=yy-igrá   h(e) adí?   [ha'di]*
          2s=understand   thing ANA
          do you understand this?

(57) *…íizac(e) adí a=ṣṣóṭ-kat…   ['i:zaʧa'di]*
          youth   ANA 3s=jump-VEN
          …this youth jumped…

(58) *a=báara   guss(ú)   óoda.   [gu'sː'o:də]*
          3s=be   hole   DEM.NEAR
          he is in this hole.

2.4.1.10.3 Vowel-initial words preceded by vowel-final words

Final vowel-elision happens constantly where vowels meet each other at word boundaries.

To illustrate just a short utterance said by a visiting person:

> (59) *[iʒwarˈtʃidʒaˈdːæʔ ˋ / haˈdizaxtəjidˈwaˈhidʒɛn]*
> *iʒwar cíj(i) a꞊ddá h(e) adí z(a) aɣ꞊tə-yidwá híj-en*
> almost night 3s꞊do thing ANA LC   1s꞊FUT-return camp-PL
> it is almost night, so I will return home.

Unless there is a short pause as in this example to mark the end of the first statement, final vowels are dropped in many places: noun + conjugated verb; discourse particle + conjugated verb. In this utterance, two lexemes are recognized only by a single consonant that is left in the realization.

There seems to be a hierarchy higher than word level that rules over the rhythm of utterances. We have not studied this topic to a degree that we could give firm indications of rules that govern.

2.4.1.10.4 Exceptions

There are two words in the language that do not follow above rules of elision. One of them is the DET *aɣo*. Final /o/ always overrides the following vowel when it is part of the same noun phrase, e.g.

> (60) *zamá aarú aɣo (a)yda   a꞊ttén   [ˈærʷaˈɣojdə]*
> after   man DET DEM.PROX   3s꞊arrive
> after this man (here) arrived…

When *aɣo* is the last element of a NP, as before relative clauses, the following pronouns keep their initial vowel and the final /o/ sound is also produced. In that case, a glide is inserted between the two words, e.g.

> (61) *áʃʃaɣal aɣo a꞊ᵐmáy   nin   ka   a꞊bbén. [aɣoʷaˈmːɛj]*
> work   DET 3s꞊have   2s   LOC   3s꞊be.finished
> the work he has for you is finished.

The other word with exceptional behavior is *he* 'thing', which keeps its final vowel when it is in subject position or when it occurs in a heavily marked head of a noun phrase. In this case the second vowel is deleted. Consider below examples.

> (62) *hé (a)꞊ssínnihil áa꞊se kuná.*
> *['he:'s:ɪn:ɪhɪ'læ:seku'na]*
> thing 3s꞊be.much 3s꞊DAT find.NV
> he was very ill (*he* is used here as a euphemism for sickness)

> (63) *he (a)ɣ(o) óoda zá…* *[he'ɣo:də'za…]*
> thing DET DEM.NEAR LC
> so, this…

Yet consider the occurrence in (56) above, where the whole noun phrase is almost pronominal in its character, and where the regular vowel contraction takes place.

2.4.1.10.5 Suffixes on verbs

There are two vowel-initial suffixes which appear on verbs, These are the adjectivizer AJDZR *-an* and the directional allative ALL *-an*. We will treat their influence on the verb-final vowels one by one.

An /i/ preceding the suffixes is not dropped; instead a semivowel [j] appears between the basis and the suffix. One reason for this behavior could be the fact that some of the verb roots have an underlying final consonant -y# which is realized as V (see 'Final V-shortening rule'). Etymologically many, but not all, of these can be traced to Tamasheq roots with final /y/. Adding a V-initial morpheme allows this final C to be realized.

> (64) final *-i*

Tadak	with suffix	gloss	etymology
ʃí	*ʃʃʃiyán*	be lost / lost	SonKS: ʃii
háaṣi	*háaṣiyan*	to look there	?
mə́ṭṭi	*məṭṭiyán*	to change	TamW: mắṭṭăy
ɣíɣli	*yiɣliyán*	to turn around (there)	TamW: əɣləy

The only exception we have in our data is the verb *keení* 'to sleep' (KCH: /kani/). In its meaning 'to sleep away from home' it is realized *keenán* (< keení+-an).

Verbs of Songhay origin with final /u/ normally drop their final vowel before the vowel of the suffix. Verbs of Tamsheq origin often have an

underlying final /-w/ that reappears when the V-initial morpheme is added.

(65) *final -u*

Tadak	with suffix	gloss	etymology
hunú	*hunán*	leave from there	KCH: hun
húuru	*húuran*	enter there	KS: huru/a
kukú	*kukán*	long (adjective)	KCH: kuu
múnsu	*munsuwan*	be nourished	W: mănsăw
yóṛu	*yoṛuwan*	be used (clothes)	W: əṛəw
yíṣku	*yiṣkuwan*	be dried up	W: əṣḳəw
yúhu	*yuhuwan*	be born	W: ihu

In the case of *a*-final verbs, the two vowels are coalesced:

(66) *final -a*

Tadak	with suffix	gloss	Songhay KCH
ceená	*ceenán*	be small / small	ciina
diŋgá	*diŋgán*	forgetfulness / to forget	dinaa

The rare verbs that end in /o/ have different behavior (see also 2.4.1.10.1.1).

(67) *final -o*

Tadak	with suffix	gloss	Songhay KCH
babó	*babón*	'be numerous/many'	bobo 'much'
kó(y)	*kón ~ koyán*	'to leave there'	koy
mó	*monán*	'to hear there'	mom

2.4.1.10.6 Plural morphemes on nouns

The plural morpheme *-en,* which is used with nouns of Songhay origin, causes regular deletion of a stem-final vowel, e.g.

(68) *plural morpheme -en*

noun + PL	realization	gloss

noun + PL	realization	gloss
borá + en	borén	'person / people'
huuwá + en	huuwén	'milk / kinds of milk'
tugúdu + en	tugúden	'tree sg/pl'
bundú +en	bundén	'stick sg/pl'
hamborí + en	hamborén	'mortar sg/pl'
biidí +en	biidén	'bone general sg/pl'

This process of adding the plural morpheme brings about additional changes to the last consonant of the stem. In many, but not all, nouns with a velar /k/ or /g/, the velar is changed to a palatal before the suffix *-en* (cf. also 2.2.3.2) e.g.

(69) alternation k/g with c/j

noun + PL	realization	gloss
hiŋká+ en	hiŋkén	'two, sg/pl'
guŋgú + en	guŋgén	'belly sg/pl'
tuŋgú + en	tuŋgén	'turban (kind of) sg/pl'
farká + en	farcén	'donkey sg/pl'
baŋgú + en	baɲjén	'well sg/pl'
aŋgú+ en	aɲjén	'place (general) sg/pl'
haŋgá + en	haɲjén	'ear sg/pl'

2.4.1.11   /ay/ < /a/

In the first element of a compound (mainly numerals), word-final /a/ is changed to /ay/. As shown below, this does only concern /a/-final elements, in C-final 'fifty' an epenthetic schwa is inserted.

(70) iʃʃá + təmér̩wiṇ   >   iʃʃέy-təmér̩wiṇ   'seventy'
      seven + ten.PL

      ṭaaṣá + təmér̩wiṇ   >   ṭaṣέy-təmér̩wiṇ   'ninety'
      nine + ten.PL

      ʃammúʃ + təmér̩wiṇ   >   ʃammúʃ-ə-təmér̩wiṇ   'fifty'
      five + ten.PL

When the enclitic *a=* 'he/she' joins the genitive *n*, /a/ becomes [εy].

(71) *a + n*   **>**   *ay꞊n* *'his, her'*
      3s + GEN

2.4.2 Resyllabification

There are several environments in the language that lead to resyllabification. The most frequent is adding the plural morpheme, then there are conjugations and also some possessive contexts demand it. The following illustrates the different environments.

2.4.2.1 Plurals

Adding morphemes to a stem (e.g. plural) may lead to restructuring of the word.

(72) *Plurals*

singular	plural	gloss
aarú + en	*arwén*	man/men
éelaw + an	*élwan*	elephant/s
íiləs + an	*ílsan*	tong/s
báarar + en	*bárren*	child/children

2.4.2.2 2s combinations

A restructuring of syllables also happens in contexts where morphemes are joined together. Resyllabification takes place when *ni꞊* '2s' combines with MAN markers of the shape CV- with a voiceless initial consonant. '2s' is then realized *ən꞊.*

(73) *ən꞊sə-báy꞊a*
     2s꞊NEG.IMPERF-know꞊3s
     don't you know it?

When the imperative particle *wa ~ ba* precedes this construction, the schwa is deleted.

(74) *wá-(ə)n꞊sə-d(a)*   *aɣáy [ˈwansədaˈɣaj…]*
     IMP-2S꞊NEG.IMPERF-do 1s.IO
     don't do to me…

Apparently, a sequence of four CV syllables is not allowed in a word. The presence of the consonant /n/ is enough to identify the 2s pronoun.

The complementizer *sa* behaves in the same way when it precedes

words beginning with a voiceless initial consonant such as *kəlá* 'once' in the following example.

(75) *tanə́fust   əs   kəla aɣ꞊nə-mó   (aa)꞊se*
      story   COMP once 1s꞊NEG.PERF-hear 3s꞊DAT
      a story that I have never heard of.

2.4.2.3 Compound numbers

Resyllabification also takes place in compound numerals, which may be due to the same constraint as above. Cf. the following example, in which four open syllables would follow each other. A short vowel is inserted between the two number units to allow proper pronunciation in slow speed.

(76) *Resyllabification 'thirty'*

phonetic	[ˈkaɽɑṭəˈmɛɽwɪṇ]
underlying/slow speech	*kaaɽáḍ-[ə]-təmérwiṇ*
morphemes	three-ten.PL
gloss	thirty

The speakers do not seem to be conscious of this process. When they repeat slowly, they have no resyllabification. But as soon as the same person uses the word in a running conversation the resyllabified form is used.

2.4.2.4 Possessive pronouns

The 1s and 1p possessive pronouns *aɣa꞊n* (1s꞊GEN) 'my' and *arə꞊n* (1p꞊GEN) 'our' are resyllabified when they precede a noun with an initial vowel. The second vowel in the pronoun is dropped and the genitive *n* forms a syllable with the following vowel of the lexeme.

(77) *Resyllabification in possessive pronouns*

pronunciation	morphemes	gloss
[aɣnaˈnaːrag]	*aɣ(a)꞊n anáarag*	my neighbor / my spouse
[aɣniˈḍuːḷin]	*aɣ(a)꞊n iḍúulin*	my in-laws
[arnalˈmæn	*ar(ə)꞊n almán*	our herd
[arˈniɣidan]	*ar(ə)꞊n íɣidan*	our kids (goat)

The other possessive pronouns have a monosyllabic shape (*ni꞊n* 2s, *ay꞊n* 3s, *i꞊n* 3p) and do therefore not behave this way. *andə꞊n* (2p꞊GEN) 'your pl' has already a closed syllable and cannot be shortened by dropping the last V.

2.5 Stress

Tadaksahak shows clear evidence of lexical stress (cf. also Nicolaï 1980). A stressed syllable is realized with a higher pitch and more powerful air stream than an unstressed syllable. Words with four and more syllables may also carry a secondary stress on another syllable.

Stress is lexical and unpredictable. Every lexical item has at least one syllable that carries the stress. Pronoun enclitics and grammatical morphemes may or may not have inherent stress.

Long vowels do not obligatorily carry the stress. However, when a long vowel is present, the stressed syllable can only be one syllable removed from it.

The speakers are aware of word stress and use this feature to create riddles by putting the stress on the wrong syllable to cause the hearer to misunderstand the utterance.

Over an utterance different rules are applicable than over the single word, i.e., the lexical stress may shift to some other syllable.

There are some stress patterns that are frequent and new imported vocabulary often follows such established patterns. Some morphemes provoke stress pattern changes when they join roots, e.g. causative *S(V)-* and derivator *t(a)-…-t*. We will discuss these stress changes in the morphology part of this work.

2.5.1 Stress in disyllabic words

In disyllabic words all stress patterns are possible. There is no influence of syllable shape on the possible stress patterns, e.g.

(78) *Stress in (C)VC.CV words*

farká	donkey	*gánda*	ground, earth
kullú	all	*gónʃi*	snake
dumbú	to cut	*múgru*	to get built
yidwá	to return in afternoon	*yífri*	to feel

	igdá ~ iddá	because	ágli	ruminated grass
			áwsa	gall

(79) Stress in (C)VV.CV words

feejí	sheep	íini	color
baarí	horse	óoda	this
maaṛá	ten		

(80) Stress in (C)V.CV words

adí	ANA (1 item)	ána	for you
		ígi	deed (2 items)

(81) Stress in (C)VC.CVC words

farkák	to be fine/thin	tábsit	acacia flowers
katkót	to simmer	zálgat	left hand side
harkúk	always	rúmsut	to desire meat
kandín	in the past	wánjin	to refuse
argán	camel	áhwar	decoration (kind of)
alxér	peace	ádbug	aardvark

(82) Stress in (C)VV.CVC words

kaaṛád	three	áanut	stick to make fire
qaarán	to study	áadal	wild cat, sp.

(83) Stress in (C)V.CVC words

ahún	hold it!	áhuḍ	wind (kind of)
agúd	moment	bə́ləq	to be dusty
cijín	last night	bídaw	canister
bəkáw	jinn	gə́dəm	be upside down

2.5.2 Words with three syllables

In words with three syllables stress may be on any of the three syllables, e.g.

(84) Initial stress

hánaka	unidentified item
túhuya	camel's hump

hə́ḍəḍi	to be swollen
ágala	south
áanibo	child born out of wedlock
éesawa	attention, readiness
áɣaata	monitor lizard
áɣaatir	dried clay ground
áadanan	guts
ágaŋgo	croup
táfadla	wart
tánaflit	wellness
álaŋkam	place behind (on animal)
kə́rwəli	to cling to
bə́rʒəkum	to be wrapped up

Words with three syllables and a long initial vowel are rare. They always carry stress on the first syllable.

(85) *medial stress*

tugúdu	tree, wood
bakáti	packet (< English)
yafáta	to be in a clinch
abútu	navel
adácel	palm of hand
yazúurag	to be left free (animal)
aʒámar	lamb
aláaku	dirty water
taɣíiwa	ashes (kind of)
tabárda	blanket (kind of)
asílgi	tobacco pouch (kind of)
tabírjit	ring (kind of)
tadáamil	interest
abárkot	stomach (kind of)

(86) *final stress*

mududú	porridge (kind of)
aragó	radio (< French)

adagíg	crystallic powder
ajeráw	river / the River (Niger)
hamborí	mortar
bukturú	toad
jinjirí	to pray
taŋgarí	to lie
kalkatáw	corn

This stress pattern is the least frequent observed among the trisyllabic words.

2.5.3 Words with four and more syllables

The last syllable of a word with four syllables never carries the stress, the first only very rarely, e.g.

(87) *words with four syllables*

mákkabani	tree sp.
abúgara	gazelle sp.
akásamba	pit (kind of)
akáskaabu	ring (kind of)
tawaláqan	bone (kind of)
amuŋgúlu	powder (kind of)
aɣarzébbi	acacia sp.
taŋalóoti	barrel
aməsɣérrət	part of intestins
ɣəráŋɣərət	to hit off its stem (cram-cram)

The following list shows words with four syllables derived from verb stems or words with the feminine/diminutive marker (*t-…-t*), e.g.

(88) *words with four syllables (multi-morphemic)*

amənóokal	king	(< *mánəkəl* to be king)
amadáryal	blind person	(< *dáryal* to be blind)
tawénənəst	dizziness	
tatéwəqət	spot (of dirt)	
tatuŋgúrut	part of bed	
tasəkérkərt	awl (kind of)	(<*kérkər* to part (hair))

tazanábat	ewe having given birth twice in one year
tatanáqayt ~ *tatanáqit*	point in scripture

(89) *words with five syllables*

akayáŋkaya	basket (kind of)	
anafáraʃa	crazy person	(< *fíriʃ-it* to be crazy)
tamazazáydart	patient woman	(< *zázaydər* to be patient)
amandáraso ~ amandárasal	plant sp.	
almukárkada	tea (kind of)	(<Arabic)
akawkáwaʃka	woodpecker sp.	
aragáyragay	stick of tent (kind of)	
abalibáali	sheep breed	

Words with five syllables only carry stress on the penultimate or the ante-penultimate syllable.

3. Morphology

As the great majority of the Tadaksahak lexicon stems from Tamasheq, it is no wonder that – at least from the point of view of statistics – Tadaksahak morphology presents a strong similarity to Berber patterns. Linguistic literature about Berber languages has therefore been a source of inspiration in this part of the analysis. In fact, the Songhay part of the Tadaksahak lexicon comprises only about 300 lexemes. These lexemes consist of about 125 nouns and designate concrete things. Some 145 verbs are listed, of which many serve as verbal nouns as well. Other words of Songhay origin are two numerals, a few adverbs, pronouns, and appositions.

The vast majority of lexemes are of Tamasheq origin, and some of the religious terms come from Arabic. Many grammatical morphemes observed in Tadaksahak have cognates with Tamasheq morphemes.

The diversity of origins is often reflected in Tadaksahak morphology. This shows up in different morphological systems according to the etymological origin of the words. One special feature, which deserves mention already here, is the presence of a complicated system of suppletion in verb derivation (cf. Christiansen & Christiansen 2007). In Mainstream Songhay all derivations are suffixed. Many verbs accept the suffix /-(a)ndi/ which makes the causative of intransitive verbs (and a few transitives), and the factitive of verbs of adjectival quality (Heath, 1999a:164ff):

> *ŋaa* eat *ŋaa-ndi* feed, let eat
>
> *kan* be sweet *kan-andi* sweeten

In Tadaksahak, this suffix does not exist. Instead verb roots of Songhay origin are suppleted when they are causativized. The causative forms show very different roots, recognizable as Tamasheq cognates containing the causative sibilant prefix.

(1) *ŋa* eat *ʃ-íkʃa* feed

  bíibi be black *s-ə́kwəl* make black

Similarly, in Mainstream Songhay the reciprocal construction uses the indefinite singular noun 'friend, mate' (Heath, 1999a:357):

> *borey   ga cere kar.*
> person.PLDEF MAN friend hit
> the people hit each other.

In Tadaksahak, however, the reciprocal is expressed with a nasal prefix as in Tamasheq.

(2)   *yídɣər*   to be glued   *m-ə́dɣər*   to adhere to

As with causatives, Songhay underived verbs may be paralleled by Tamasheq-based derived forms (sometimes a double middle prefix), e.g.

(3)   *kár* to hit   *nə́-mm-aŋɣa*   to hit/kill each other

For passive forms, Mainstream Songhay verbs take the same morpheme as for causative forms. In Tadaksahak, a Tamasheq-based derivation with a prefix *tuw-* is used, and the same suppletion as signaled above is found, e.g.

(4)   *wí*   to kill   *túw-aŋɣa*   to be killed

3.1   The verb

In this chapter the grammatical category of the verb is discussed. First the verbs are grouped into different classes depending on their derivational behavior. Then the different verbal derivations are described. The following section is dedicated to inflection. The ensuing discussion shows arguments for the notion of a 'verbal word', a grammatical unit found in Tadaksahak very similar to the Tamasheq inflected verb.

3.1.1 *Verb root classes*

The derivational and inflectional behavior of verbs differs depending on the etymology and shape the verb roots. The following section gives the different classes with some of their distinctive features.

The most remarkable split for verb classes is along etymological lines and separates the verbs into Songhay and Tamasheq cognates. On the surface the Songhay cognates may be recognized by

a) CV or CVC pattern, e.g. *dá* 'to do', *mó* 'to hear', *mún* 'to pour out', *dút* 'to pound'

   b) a nasal closing the first syllable of a di- or tri-syllabic root; e.g. *hambará* 'to fear', *cindí* 'to leave a rest', *gaŋgá* 'to prevent s.b. from'

   c) a long V in the initial syllable, e.g. *keení* 'to sleep', *báaγa* 'to want / to love'

   d) two short Vs in a di-syllabic root with open final syllable, e.g. *didá* 'to walk', *tabá* 'to taste'

These patterns are not a safe parameter of recognition for the origin of the root. Moreover, some CVC verbs are indeterminate whether they are of Songhay or of Tamasheq stock, e.g. 'to be thirsty' Songhay: /faar / faaru/; Tadaksahak: *fad;* Tamasheq: /ufad/ 'to be thirsty', /fad/ 'thirst'.

Derivation of Songhay-based verbs always means suppletion of the verb root. Some inflections are handled like that of the /y-/ initial verbs of the Tamasheq class.

The Tamasheq class of verb roots is divided into three groups. The criteria are surface shapes:

   a) first consonant is other than /y/, e.g. *láŋkəm* 'to sit behind someone (on animal)'; *kəmás* 'to tie up (sugar, coin) in corner of garment'

   b) first consonant is /y/, e.g. *yíḍən* 'to graze';

   c) tri- or polysyllabic roots with final /-ət/, e.g. *wáləq-ət* 'to swallow in one gulp'

Group (a) behaves the most regularly. These roots do not drop consonants in either inflection or derivation.

Group (b) loses the initial /y/ in some inflections and all derivations.

Group (c) loses the final consonant in nominalization while the last syllable does not count for stress distribution.

The verb roots of Tamasheq origin with more than two syllables tend to have 'neutralized' vowels. Schwa is by far the most frequent in this class of verbs. Back consonants (e.g. χ, ħ, ʕ) tend to 'attract' the low vowel [a] and palatalized consonants (e.g. /ʒ/, /ʃ/ and /y/) are mostly followed by [i].

The citation form of verbs in this work always shows an initial consonant for verb roots. The /y-/ initial verbs are remarkable in that they lose this initial consonant in some environments. It would seem that the 3rd person masculine singular perfective form in Tamasheq is the base for the Tadaksahak verb root. The inflected form of the root /dhl/ 'to help' in Tamasheq Tawəlləmmət is *idhăl* 'he helped' on which *a꞊yyídhəl* 'he helped' is based.

Many derivations in Tadaksahak consist of a prefixed consonant (e.g. *s(ə)-* 'causative'). In such contexts, the initial /y-/ is dropped and the derivational consonant replaces it. *yíktəb* 'to write' becomes *s-ə́ktəb* 'to make write'. Note that the realization of the first vowel is now schwa.

A similar phenomenon occurs with inflectional prefixes consisting of only a consonant, e.g. *b-* 'imperfective' and *m-* 'subjunctive'. The four y-initial Songhay roots expose the same behavior as the Tamasheq cognates. For the long consonants see 2.4.1.7.2.

(5)   Inflection of y-verbs

perfective	imperfective	gloss	Etymology
a꞊yyéeri	*a꞊bb-éeri*	to throw up	Son: yeeri
a꞊yyéd	*a꞊bb-éd*	to return	Son: yee
a꞊yyígməm	*a꞊bb-ə́gməm*	to chew (tobacco)	Tam: əgməm
a꞊yyiʒwál	*a꞊bb-əʒwál*	to mark (animal)	Tam: aʒwəl
a꞊yyaafá	*a꞊bb-aafá*	to yawn	Tam: aṭu

In the class of the /-ət/-final verbs, one remarks the change of the final syllable in verbal nouns. There are about 130 verbs of this type in our corpus.

(6)   Nominalization of -ət final roots

verb root	verbal noun	gloss
dǝ́lǝnf-ət	*a-dǝ́lǝnf-u*	to be gooey
fǝ́lcǝq-ət	*a-fǝ́lcǝq-u*	to be flat
fǝrǝ́nfǝr-ət	*a-fǝrǝ́nfǝr-u*	to stir quickly

ʒílliʒ-it	*a-ʒílliʒ-u*	to wash (grain)

3.1.2 Verb stems

Verb stems may consist of a verb root and one or more derivational prefixes.

All underived verb roots of Songhay origin have a semantically similar counterpart of Tamasheq origin. This Tamasheq root appears when derivation or certain nominalizations happen. Such roots never occur without a derivational or nominalization morpheme and are therefore considered to be bound. In running texts these roots are glossed with BND for 'bound'.

(7)   *Examples of bound roots*

root	Causative	Passive	noun/VN	gloss
ŋa	*ʃ-íkʃa*	*t-ə́kʃa*	*a-ʃ-ákʃ-o*	to eat
kuŋgú	*s-íywən*	*túwa-s-íywən*	*t-éewan-t*	to be satiated

All derivational elements are prefixed to the verb root. For most roots one prefix occurs, however some roots allow for more than one prefix.

No particular study of possible forms and combinations has been made. The following chart is based on examples found in the corpus.

(8)   *Examples of verb stems with derivational morphemes*

Pass	Caus	Reciprocal	(Caus.)	root	gloss root
		nə-mə́-	*s-*	*əlkəm*	follow
	sə-	*nə-mə́*	*s-*	*əwər*	put on
tuwa-	*sə́-*		*ss-*	*əɣra*	teach

Reduplication takes place on stem as well as on root level.

3.1.3 Derivation

3.1.3.1   Labile verbs (verb roots with variable valency)

A vast number of Songhay cognates can be used in an intransitive (often descriptive) and transitive (factitive) way. A number of Tamasheq cognates expose the same behavior.

In the list below, the first group (a) shows Songhay cognates.

The following verbs are Tamasheq cognates exposing the same characteristics. Group (b) shows the same stress pattern as stative verbs in Tamasheq, i.e. the last syllable has the stress. However, the verbs of group (c) have the stress on the first syllable and serve as intransitive (stative) verbs as well.

(9)   *Simple verbs with two valencies*

	root	intransitive gloss	transitive gloss
a)	*bíibi*	be black	blacken
	yáy	be cold	make cold
	bér	be big	enlarge
	ṭáy	be moist	moisten
	ʒén	be old	make old
	mán	be close	approach
	mór	be distant	distance
	dígdig	be broken	break
	mún	be thrown out	throw out
	lés	be unclean	make unclean
b)	*yiɣmá*	be decorated	decorate (leather)
	yiská	be combed	comb
	yiẓá	be shaved	shave
c)	*yíɣfəl*	be locked	lock
	yídraɣ	be decorated with metal	decorate with metal

root	intransitive gloss	transitive gloss
yíləm	be open	open
yíḷkəḍ	be braided	braid
yíṣbər	be spread out (to dry)	spread out
yíssaɣ	be tied two together	tie two together
yíɣʃid	be out of use	put out of use

In summary we note that a fair amount of the Songhay cognates have a double valency. Some verbs of Tamasheq origin behave the same way.

3.1.3.2   *Causative* S(ə)-

The prefix *S(ə)-* makes the causative of intransitive verbs ('make sb. walk') and many transitive verbs ('make eat' > 'feed') and the factitive of verbs with descriptive qualities ('widen'). The prefix is of Tamasheq origin.

Many causativized transitive verbs involve a 'causee', somebody who is made to do something. This semantic role is marked with dative *se*. See further discussion under Syntax 4.3.7

The causative morpheme is prefixed to the verb stem. It consists of a sibilant with a neutral vowel. Sibilant harmony is in effect and forces the causative prefix to take the same place of articulation and the same voicing as the sibilant present in the verb stem or root.

(10)   *Causative morphemes*

	root contains
z(V)-	voiced alveolar fricative
ʒ(V)-	voiced palatal fricative
ʃ(V)-	voiceless palatal fricative
s(V)-	elsewhere

(11)   *Sibilant harmony*

verb root	causative	gloss
m-ə́zəg [1]	*zə́-mm-əzəg*	to race a race (camel) / to be made to race
m-íʒi [1]	*ʒí-mm-iʒi*	to be separated /

		to separate
yínʃiʃ	*ʃ-ínʃiʃ*	to be filtered / to filter
yíbsa	*s-ə́bsa*	to be saved / to save

All y-initial verbs drop the initial consonant and replace it with the consonant of the prefix. Verbs beginning with 'core' consonants add a syllable with a vowel of the same quality as the rest of the root.

Note 1: For both, *m-íʒi* and *m-ə́zəg* an initial /m-/ morpheme with a semantic "middle"-component are recognizable. They are no longer separable from the root. *yíʒi and *yízəg do not exist.

Adding a morpheme to the root, which equals an extra syllable in some cases, causes stress shifts. The stress is on the causative morpheme syllable unless this leaves three unstressed syllable to the right. In this case the stress moves on the ante-penultimate syllable.

(12)   *Stress on causative stems*

verb root	causative	gloss
yáhar	*s-áhar*	to be covered / to cover
yídbəl	*s-ə́dbəl*	to be in heaps / to heap up
ɣánfəd	*sá-ɣanfəd*	to be hobbled (kind for camel) / to hobble
gə́rəff-ət	*sə-gə́rəff-ət*	to kneel / to make kneel

3.1.3.2.1   Causative with suppletion

For all verbal derivation the etymology of the roots is of crucial importance. Verb roots of Songhay origin cannot take derivational morphemes. These roots are replaced by suppletive roots in order to take derivational prefixes. In such suppletive forms, both the prefix and the root have a Tuareg background.

The examples below show verbs with (a) a descriptive meaning, (b) other intransitive verbs, and (c) transitive verbs.

(13)   *Some examples of suppletion of Songhay roots*

	Songay root		causative	gloss
a)	*bér*	to be big	*ʃ-ámɣar*	to honor (person) to respect (person)

	root	gloss	causative	gloss
	qóq	to be dry	*s-ə́ɣər*	to dry
	kuŋgú	to be full	*s-íywən*	to eat enough
b)	*káŋ*	to fall	*ʃ-ə́ḍḍər*	to make fall
	héw	to cry	*s-əlhá*	to make cry
	gorá	to sit	*ʃ-áɣam*	to make sit
c)	*záw*	to take	*ʃ-úuwa*	to send s.th. to s.b.
	taŋgá	to lead (animal)	*ʃ-ə́wət*	to make go (animal) ahead of s.b.
	dút	to pound	*ʒ-íygiʒ*	to make s.b. pound

There are over one hundred verbs in our corpus that have a suppletive root for the causative (as well as the other derivations treated below) (see Appendix II).

3.1.3.2.2 Exceptions for sibilant choice

The large majority of the causative forms are covered by the rules of sibilant harmony given above.

However, there exist a number of roots that do not follow these rules. In particular the choice of a sibilant when no sibilant is present in the root poses some problems. Our examples show the following tendencies for roots that contain no sibilant:

1) Roots without sibilant starting with two voiced consonants may take /z/

(14)   *Roots with voiced consonants*

root	causative	gloss (of the causative)
bə́ləl	*zə́-bbələl*	to set at ease
bə́rmət	*zə́-bbərmət*	to change money
də́ləg	*zə́-ddələg*	to make decorate (leather/face)
gə́nnəti	*zə-gə́nnəti*	to make bend one's head backwards
wulə́twulət	*zu-wulə́twulət*	to make bend (wind)

2) Roots without sibilant containing pharyngeal sounds including /ɣ/, /x/ and /w/ may take /ʃ/ (cf. a) below). The same is true for some of the suppleted roots that contain a pharyngeal consonant. The examples are under b) below.

(15)   *Roots with pharyngeal consonants*

	root	causative	gloss (of the causative)
a)	*yáħala*	*ʃ-áħala*	to make pure (religiously)
	yáʕad	*ʃ-áʕad*	to make straight
	yíxlək	*ʃ-əxlək*	to create
	yilwá	*ʃ-ilwá*	to make wide
b)	*bér*	*ʃ-ámɣar*	to honor (person); to respect (person)
	káŋ	*ʃ-əḍḍər*	to make fall
	báaɣa	*ʃ-éeṛa*	to make s.b. love s.b.
	záw	*ʃ-úuwa*	to send s.th. to s.b.
	taŋgá	*ʃ-əwət*	to make go (animal) ahead of s.b.

There are a few other irregular forms:

(16)   *Irregular forms*

root	causative	gloss (of the causative)
raɣís	*ʃə́-rɣəʃ*	to make cheap / to facilitate
déeraw	*sú-dru*	to make have in common

A few Songhay cognates take the Tamasheq derivational prefix without suppletion. This exceptional behavior is probably due to their shape, which (falsely) suggests a Tamasheq origin. Some of these verbs start with /y-/, which is in most cases indicates a Tamasheq cognate. One root has an initial sibilant /ʒ/ that apparently is interpreted as a causative morpheme and therefore is allowed to take a prefix. This particular verb root has for some unknown reason added a final /-t/ and so falls in a class of verbs that are otherwise of Tamasheq origin. The Songhay cognates of Timbuktu (KCH) are given unless marked differently (KS for Gao).

(17)   *Songhay roots with causative prefix*

root	gloss	caus.	gloss	KCH
yéd	to return	*s-eedí*	to make return	yee
yéeri	to vomit	*s-éeri*	to cause to vomit	yeeri (KS)
ʒíibit	to be dirty	*ʒí-ʒibit*	to make dirty	jiibi

The case of *s-eedí* is remarkable, as there appears an additional /i/ at the end of the stem. Possibly, /yeeri/ 'to restitute' is related to /yed/ 'return'. The causative may have been taken from an older disyllabic form.

3.1.3.2.3   Double causative

A small number of roots allow for double causatives. Some of them are semantically motivated, while others cannot be satisfactorily explained. The examples under (a) are Tamasheq cognates with an intransitive use in the root form (to graze; to be divorced). The first causative form adds a human will (to make (animal) graze; to make be divorced = to divorce) and the second causative involves one more human causer (to make somebody graze (animal); make somebody divorce)

Example (b) has an intransitive root in Tadaksahak (*keedí* 'be up on = be mounted'). *s-ə́wəṇ* is used in an active form 'to put somebody on something'. The double causative form adds another human actor (make somebody put something on something)

(c) gives examples with suppletion where no simple causative is found. These cases cannot be explained with semantic or syntactic reasoning.

(18)   *Double causatives*

	root	causative	double-causative	gloss
a)	*yíḍəṇ*	*ṣ-ə́ḍəṇ*	*ṣə́-ṣṣ-əḍəṇ*	make graze
	léf	*ʃí-ləf*	*ʃí-ʃʃi-ləf*	make divorce
b)	*keedí*	*ṣ-ə́wəṇ*	*ṣə́-ṣṣ-əwəṇ*	make put on
c)	*wí*		*sə-súw-aŋɣa*	make kill
	mún		*ṣə́-ss-əŋɣəl*	make pour

3.1.3.3   Reciprocal and Middle

As in most languages of the world, Tadaksahak has some inherently reciprocal verbs. But the larger part is marked with a prefix as shown below.

3.1.3.3.1   Lexical reciprocals

A number of verbs have a reciprocal component that is not marked with a morpheme. Syntactically, when they are found with a plural subject they do not need a complement. When used with a subject in the singular, a complement is needed to be grammatically correct.

Examples:

(19) a) *i-b-zóɣ.*
          3p-IMPERF-fight.verbally
          they fight (each other).

      b) *i-b-saawá.*
          3p-IMPERF-look.alike
          they look alike (like each other).

The examples in our corpus with marked reciprocals exceed by far the few unmarked roots.

3.1.3.3.2   Morphologically marked reciprocals and middles

The morphemes found to express reciprocal or middle meanings are the following.

(20)   *Reciprocal morphemes*

          m(ə)-   root contains no labial C

          n(ə)-   root contains labial C

          nə-m(m)(ə)-

The basic form of the prefix is *mə-*, as illustrated under (a). The use of the allomorph *nə-* is conditioned by the consonants in the root it is prefixed to. Verb roots containing an /m/ or any other labial (/b/ or /f/; /w/ does not count as labial for this feature) take the *nə-* prefix. See examples under (b).

(21)   *Use of allomorphs*

	verb root	reciprocal	gloss
a)	*yídɣər*	*m-ə́dɣər*	to be glued / to adhere to
	yíxwəl	*m-áxwəl*	to be preoccupied by s.th. / to be bothered by s.b.
	ṭə́rṭər	*mə́-ṭərṭər*	to be along / to line up
b)	*yírzəm*	*n-ə́rzəm*	to be tied around / to cramp
	yíbdəd	*n-ə́bdəd*	to be held up / to stand together
	gə́rtəttəf	*nə-gə́rtəttəf*	to stumble / to stumble

Morphologically marked reciprocals cannot be distinguished from middles on the grounds of the morpheme. One meaning found for the morpheme is 'doing something together' or paraphrased differently 'doing something <u>with</u> each other' as opposed to 'doing something <u>to</u> each other'. However, it is striking that a very high percentage of verbs with the doubled *nə-m(m)(ə)-* prefix express reciprocity, implying a patient and an agent.

A reasonable amount of verbs occur with a reciprocal prefix without a basic underived root to belong to.

(22)   *Roots not found without reciprocal prefix*

stem	gloss
m-ə́dəd	to be weak
m-ə́dəs	to be compared
m-ə́daɣ	to be side by side
m-ə́ṇi	to meet
m-ə́grəz	to regret
m-ə́ɣəlɣəl	to be thoughtful about
m-ə́ʃəqət	to be preoccupied with
m-ə́ṭṭi	to change (one self)
m-ə́ləli	to be inside out
m-ə́ṇəṇ-ət	to turn oneself around
m-ə́ṭṭəkwi	to move from
n-ə́fli	to be at ease

As observed with the roots that take a causative prefix, the different types of roots behave similarly when taking the reciprocal prefix. /y/ is dropped (a), some roots (and stems) need to adjust the stress to the ante-penultimate syllable (b) and some roots resyllabify (c).

(23)   *Roots and stems taking the reciprocal prefix*

	root	reciprocal	gloss root	gloss derived root
a)	*yídɣər*	*m-ə́dɣər*	to be glued	to adhere to
	yiltáɣ	*m-ə́ltaɣ*	to be glued	to adhere together
	yígər	*m-ə́gər*	to push away	to butt
	yískəl	*m-ə́skəl*	to take away	to change against
	yíbdəd	*n-ə́bdəd*	to be held up	to stand together
	yíɣbəṛ	*n-ə́ɣbəṛ*	to squeeze between	to squeeze self between
	yíktəb	*n-ə́ktəb*	to write	to write each other
	yírkəb	*n-ə́rkəb*	to pull	to pull from s.th.
	yírdəf	*n-ə́rdəf*	to be unhooked	to hook with
	yírzəm	*n-ə́rzəm*	to hang around s.th.	to cramp
	yímbəz	*n-ə́mbəz*	to disperse	to be dispersed among
b)	*gə́rtəttəf*	*nə-gə́rtəttəf*	to stumble	to stumble
	kə́rəbət	*nə-kə́rəbət*	to join	to join
	tə́ltəl	*mə́-təltəl*	to roll up	to be tangled up
	ṭə́ṛṭəṛ	*mə́-ṭəṛṭəṛ*	to be along	to line up
c)	*ḍə́ṇay*	*mə́-ḍṇi*	to fill	to force feed
	ẓə́ḷay	*mə́-zḻi*	to be different	to confuse with
	fəlás	*nə́-fləs*	to believe s.th.	to have confidence in s.b.

Mainstream Songhay has no morphological reciprocals. When not

expressed lexically they are analytic and formed with the lexeme 'friend' without definite and plural morphemes serving to mark 'each other'. It is not surprising therefore that in Tadaksahak Songhay cognates taking reciprocal morphology are borrowed from Tamasheq.

(24)   *Songhay roots suppleted by Tamasheq cognates*

root	reciprocal	gloss root/ derived suppleted root	Tamasheq cognate
káy	*n-ə́bdəd*	to stop/stand together	əbdəd
na	*n-ə́kfa*	to give/give each other	əkfa
ṭáaṭab	*n-ə́zmi*	to sew/sew together	əẓməy
gorá	*nə́-ɣiima*	to sit/sit together	ɣamu

The double prefix is very frequent with suppletive roots and mostly indicates reciprocals.

(25)   *Suppletive roots with double prefix*

root	reciprocal	gloss root	gloss derived root
wi	*nə́-mm-anɣa*	to kill	to beat/kill each other
dá	*nə́-mm-əga*	to do	to do to each other
mór	*nə́-mm-əgəg*	to be distant	to be distant from each other
mán	*nə́-mm-əhəz*	to be close	to be close to each other
háaṣi	*nə́-mm-əswud*	to look	to look at each other
kár	*nə́-mm-əwut*	to hit	to hit each other
záw	*nə́-mm-əwi*	to take	to be infectious (lit: to be taken to each other)

There are a number of underived Tamasheq cognates that also take a derived form with the double prefix. In many cases a meaning of 'doing together/with each other' is conveyed.

(26)   Tamasheq cognates with double prefix

root	reciprocal	gloss root	gloss derived root
yardá	nə́-m-arda	to agree	to agree with each other
yídkəl	nə́-m-ədkəl	to pick up	to pick up together
yíɣli	nə́-m-əɣli	to go around	to go around from two sides
yogá	nə́-mm-əga	to spot	to spot each other
yíntəz	nə́-m-əntəz	to pull quickly	to pull from each other
yíṛəm	nə́-m-əṛəm	to try	to try with each other
yíṛəṣ	nə́-m-əṛəṣ	to ford	to ford together
yíwaɣ	nə́-mm-əwaɣ	to block way	to block passage together
yizgár	nə́-mm-əzgər	to bear sb. a grudge	to bear a grudge against each other
kúʃit	nə-mú-kuʃit	to inherit	to inherit from each other
ʃə́gn-ət	nə-mə́-ʃəgn-ət	to reproach	to reproach each other
kəsán	nə́-mmə-ksan	to refuse	to refuse to (hold) together
zə́ray	nə́-mmə-zri	to pass after sb.	to miss each other

A few roots are found with the single as well as with the double prefix; in such cases different meanings are conveyed, e.g. *yírkəb* 'to be pulled' (underived form); *n-ə́rkəb* 'to pull from' (singly derived form); *nə́-mm-ərkəb* 'to pull between each other' (double derivation).

3.1.3.4　*Passive* t(ə)-, tuw- *and* tuwa-

There are three prefixes which may form the passive of a verb.

(27)　　*Passive prefixes*

t(ə)-

tuw-

tuwa-

Using a passive prefix always implies a human agent that the speaker does not want to name. At the same time it is ungrammatical to add the agent in the same clause as is possible in English, e.g. 'he was hit by his brother.'

Some semantically less 'active' verbs like 'call' allow for a complement with *ənda* 'with' when used in the passive voice, e.g. 'the place was called *ənda* T.'

tuwa- only occurs preceding causativized stems and the few roots of Songhay origin that allow the passive morpheme. This suggests that this is the default prefix for already derived stems and a few Songhay cognates.

The allomorphs *tuw-* and *t(ə)-* are less predictable. The shorter form tends to replace the initial /y/ of that verb class. But there are *tuw-* passives found preceding y-initial verbs.

tuw- is the least frequent allomorph found mostly preceding suppletive roots that replace Songhay verbs to form the passive voice.

The following list shows different ways to form the passive voice. Group (a) shows the replacement of /y-/ with *t-*. The examples under (b) resyllabify to take the prefix. (c) gives the only example in our corpus of a y-verb that takes the *tuw-* prefix. The last example (d) has no 'basic' form, only a causative stem is known.

(28)   Passive forms of Tamasheq cognates

	root	passive	gloss
a)	yíbət	t-ə́bət	be snatched
	yíləm	t-ə́ləm	be opened
	yíqbul	t-ə́qbul	be accepted
	yíttəl	t-ə́ttəl	be wound around
	yíkkəl	t-ə́kkəl	be elevated
	yiwáɣ	t-úwaɣ	be blocked
b)	ḍə́ṇay	tə́-ḍṇi	be filled
	kəsán	tə́-ksan	be refused
c)	yílka	túw-əlka	be disdained
d)	ʃ-úḍuf	t-ə́ḍəf	be withheld

Songhay roots undergo suppletion when used in the passive form. Both kinds of prefixes are attested. The list below gives examples for the *t(ə)-* prefix under (a) and under (b) are the forms with *tuw-*.

(29)   Passive forms of Songhay roots with the Tamasheq cognate.

	root	passive	gloss	Tam cognate
a)	záw	t-ə́wi	bring	awəy
	keedí	t-ə́wəṇ	climb/ride	əwəṇ
	dumbú	t-ə́gzəm	cut/slaughter	əgzəm
	dá	t-ə́ga	do	əgu
	nín	t-íʃu	drink	ăʃ(w)u
	ŋá	t-ə́kʃa	eat	ikʃa
	zóɣ	t-ə́kṇəṣ	fight (also verbally)	əkṇəs
	habá	t-ə́frəd	gather (food)	əfrəd
	ná	t-ə́kfa	give	ăkfu
	kár	t-ə́wət	hit	əwət
	záy	t-úkuṛ	steal	akər
	gón	t-ə́lməz	swallow	əlməẓ
	diní	t-úbuẓ	take	əbəẓ

	root	passive	gloss	Tam cognate
	káw	*t-úkuʃ*	take out	əkkəṣ
	hár	*t-ə́məl*	tell	əməl
	háaṣi	*t-úṣwuḍ*	look at	əswəḍ
	hurrú	*t-ə́gmi*	look for	əgməy
b)	*mó*	*túw-əsla*	hear	ăslu
	ṣót	*túw-əggəd*	jump over	əggəd
	wí	*túw-anɣa*	kill/hit	anɣu
	báy	*túw-asun*	know	əssən
	dís	*túw-iya*	leave alone	ăyyu
	céw	*túw-aɣra*	call s.b.	ăɣru
	báaɣa	*túw-əṛa*	love/want	iṛu
	qaarán	*túw-aɣra*	read/study	ăɣru
	cí	*túw-ə́ṇṇa*	say	ăṇṇu
	guná	*túw-əni*	see	ənəy

The full form *tuwa-* appears mostly on stems that have a causative morpheme. Adding two syllables to a di-syllabic root or stem always entails stress shift from the first syllable of the stem to the ante-penultimate syllable which is the default stress for verbs (third from right).

(30)   *Passive forms of Tamasheq causative roots*

stem	passive	gloss
s-ə́rkəb	*tuwá-s-ərkəb*	be pulled
ṣ-ə́ṣṣəg	*tuwá-ṣ-əṣṣəg*	be milked
z-úguz	*tuwá-z-uguz*	be made to enter

One example occurs that has a non-sibilant initial C but behaves like a causative. This root may be interpreted as having an atypical causative prefix, i.e., the reduplication of the root suggests such reading. 'to load' *jijí* (from Tamasheq /gǎggu/ 'to load') has the passive form *tuwá-jiji* 'be loaded'.

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There are a few Songhay verbs that take this morpheme for the passive voice. Find the attested examples in the list below.

(31)   *Songhay roots taking the passive morpheme*

root	passive	gloss
fík	*túwa-fik*	be planted
mún	*túwa-mun*	be poured out
tím	*túwa-tim*	be pricked (get an injection)

3.1.3.5   Reduplication

In Mainstream Songhay, according to Heath (1999a:141; 1999b:173), verb-stem reduplication is not a very common feature, but sometimes indicates iteration or prolongation.

It is not extremely productive in Tadaksahak either, but there are a number of examples in our corpus that merit discussion.

The general meaning of duplicated verb stems suggests 'repeated action' 'doing many of' for action verbs as illustrated in (a) and conveys 'intensification' for qualifying verbs (b).

(32)   *Reduplication of Songhay cognates*

	root	gloss	duplicated	gloss
a)	*báq*	to break	*báqbaq*	to split (into many small pieces)
	káy	to stand	*káykay*	to stroll (stop many times)
	háw	to attach	*háwhaw*	to attach many
	kós	to cut	*koskós*	to cut in pieces
	mún	to throw out	*munmún*	to throw out (repeatedly)
b)	*cidáy*	to be red	*cidícidi*	to be very red
	kóoray	to be white	*korókoray*	to be very white
	ceená	to be small	*cinícina*	to be very small

The disyllabic roots shown in (b) above reduplicate the initial CVC. A copy vowel is inserted to link to the complete second segment. All

long vowels of the root are shortened. In addition, the last example has a higher vowel. This could be caused by shortening and the preceding palatal C. In these examples the stress pattern fits with the default for verbs.

The verb roots of Tamasheq origin need to adjust for reduplication. y-verbs loose /yV-/ and re-syllabify. The two most frequent patterns modify as follows:

(33)   *Reduplication patterns for Tamasheq cognates*

yiC$_1$VC$_2$ → C$_1$VC$_2$-C$_1$VC$_2$

yiC$_1$C$_2$əC$_3$ → C$_1$əC$_2$əC$_3$-C$_1$əC$_2$əC$_3$

The illustrations are under (a) in the list below.

Verb roots with final /-ət/ lose this syllable and duplicate the remaining part. Examples are under (b) below.

(34)   *Reduplication of Tamasheq cognates*

	root	gloss	duplicated	gloss
a)	*yíttəl*	to roll around	*tə́ltəl*	to roll up
	yífṛəṣ	to cut (kind of)	*fəṛə́sfəṛəṣ*	to cut in many small pieces
	yísləf	to carve	*sələ́fsələf*	to carve many
	yíɣli(y)	to go around	*ɣəlíyɣəli*	to go around repeatedly
b)	*búk-ut*	to thresh (millet)	*búkbuk*	to clean by hitting
	tə́bb-ət	to hammer	*tə́btəb*	to castrate (kind of)
	kə́rəmm-ət	to cut s.th. dry	*kərə́mkərəm*	to crumble

A number of verb stems only occur as duplications. Both forms with a Songhay background (e.g. *cáycay* 'to weave', cf. KCH *key* 'to weave') and forms with a Tamasheq background belong to this class.

Among the CVC-CVC patterned stems, the vowels can be different from schwa. This may indicate that some of these forms are more likely of Songhay stock. See examples under (a) below.

The doubled di-syllabic stems invariably have the vowel schwa. With four syllables these stems take the default stress for verbs on the ante-penultimate syllable. Illustrations are in (b).

(35)   *Verbs only appearing in a duplicated form*

	stem	gloss
a)	*cáycay*	to weave (up and down, up and down)
	də́zdəz	to castrate (kind of)
	kúfkuf	to castrate (kind of)
	dígdig	to break/split (many small pieces)
	fə́rfər̩	to rub fast (foot on camel's neck)
	kúŋkun	to roll up (mat)
	rə́grəg	to tie (tent sticks) together
	lə́fləf	to climb (insects)
	mə́lməl̩	to wind (through material)
b)	*gər̩ə́zgər̩əz*	to chew with noise
	katámkaṭam	to cut (meat) in small pieces
	kər̩ə́fkər̩əf	to tinker
	rəgə́trəgət	to rock
	rəkíyrəki	to wobble
	təmə́ɣtəməɣ	to wink at somebody.

The examples given so far only show un-derived roots. There exist also derived forms with reduplication. Two different strategies can be observed.

a) derivation applies to the reduplicated stem

b) derived stems are duplicated

Pattern (a) is found in Tamasheq and must have its origin with imported lexical items from that language.

Pattern (b) seems to be an innovation. It is striking that the stress pattern on these reduplications is different from the default. The stress of the duplicated element is echoed in a weaker form on the second element however long the string of syllables may be. The shortest example is CV́CV-CV̩CV and the longest has four syllables to be duplicated.

(36)   *Reduplicated roots with causative derivation*

stem	caus + duplicated stem	gloss of the causative
tíγti	*sә́-tiγti*	drive s.th. into
γәlíγγәli	*sә-γәlíγγәli*	make pivot
	sә́-foγfoγ	click with lips to call sheep
wәlә́twәl-әt	*sә-wәlә́twәl-әt*	make bend in the wind

The last example on the above list violates the rule that requires duplicated roots to drop the final *-et* syllable.

(37)   *Duplicated causative stems*

stem	duplicated stem	gloss duplication
ʃ-ídu	*ʃ-ídu-ʃ-ịdu*	assemble many things
s-ә́γli	*s-ә́γli-s-әγli*	make go around
ṣ-ә́ṭṭәb	*ṣ-ә́ṭṭәb-ṣ-әṭṭәb*	pour repeatedly small quantities
sә-tә́rәm-әt	*sә-tә́rәm-әt-sә-tәrәm-әt*	distribute something dry and small

The behavior of stress in duplicated roots and stems is shown in the following scheme.

(38)   *Duplication + Stress*

[root] + [root] -->	*CVCV́-CVCV*
Caus-[root + root]	*CV-CV́CVCV*
[stem] + [stem] -->	*CV́CV-ÇVCV*

3.1.3.6   *Directional* -kat *and* -an

The directional markers are not obligatory but if present, they are suffix to the verb stem.

Mainstream Songhay only has a centripetal suffix ('towards the speaker'), but Tamasheq has both, a centripetal and centrifugal

('away from the speaker') enclitic. Tadaksahak may have copied this two-way opposition from Tamasheq.

KCH and KS have a suffix /-kate/ with the meaning 'to here' which is probably related to the verb /kata ~ kate/ 'bring' (Heath 1999a:140; 1999b:172).

The centrifugal enclitic in Tamasheq /(n)ín/ (Prasse et al. 579;620) 'thither' looks similar to the Tadaksahak form *-(n)an* but has irregular vowel quality. In other Songhay languages the verb 'release, leave alone, let go' is attested as /nan/ (Timbuktu) and /naŋ/ (Gao). This verb would also constitute a possible origin of the Tadaksahak directional.

-kat indicates the centripetal direction. It is glossed VEN 'ventive' indicating 'moving towards the deictic center (or speaker)'. *-an* stands for the opposite direction (centrifugal) and is glossed ALL 'allative' meaning 'moving away from the speaker'.

In Tadaksahak *-kat* is much more frequent in texts than *-an*. Movement verbs take the suffixes the most easily, e.g., 'to return' *yéd* is most frequently encountered as *yée-kat* 'return to here' (see 'irregular assimilation with /k/' for the pronunciation 2.4.1.5) but also as *yéedan* 'return to there'.

Other verbs regularly found with *-kat* are: 'leave' 'pass', 'leave from', 'run' and 'go out'. The movement verb *tén* 'to arrive' (possibly cognate with KCH /tenje/ 'go towards, head for') does not occur with the suffix.

The suffixes are in no way restricted to movement verbs. They are found on verbs like 'undo', 'do', 'attach', 'cut', 'kill', 'see' or 'sneeze'.

The occurrence of nouns containing the suffix confirms its derivational status, *kos-kat-én* (cut-VEN-PL) 'the cut-off things'.

Tadaksahak has no underived verb root with the meaning 'bring'. The verb *záw* 'take' is usually heard with *-kat* to express 'bring'. Likewise, *yímmər* 'pass by' with *-kat* 'pass (somewhere) to here' is another way to express 'bring'. These examples could be rephrased as 'take and bring'/'pass and bring' respectively. However, the occurrence of the suffix with non-movement verbs suggests a semantic centripetal direction only not involving a 'bring' component.

There is no verb root in the language to express 'to come'. The form /kaa/ 'to come' from Songhay is not found, only the form *koy* 'to leave'

is used. This root expresses a movement away from some place and it is then specified whether this movement is towards the speaker or away from her/him.

(39) a) *a꞊kkó(y).*
         3s꞊leave
         s/he left.

     b) *ni꞊kkóy-kat   aɣáy.*
         2s꞊leave-VEN   1s.O
         you came to me. (you left to here [where I am])

     c) *a꞊kkóy-an áy꞊n   híj-en*
         3s꞊leave-ALL 3s꞊GEN   tent-PL
         s/he went to his/her camp. (s/he left for there to...)

The imperative of this verb when used to cause a movement towards the speaker is a suppletive root from Tamasheq (4.3.5).

Some verbs are hardly ever used without a directional suffix. *dáy* 'to deal' is an example; while the verb can occur without a suffix (see a), it is by far most frequently encountered with the suffix (see b and c):

(40) a) *danj-én   i꞊b-dáy   ʃammúʃ.*
         charcoal-PL 3p꞊IMPERF-deal   five
         (bags of) charcoal are dealt for 25 Fcfa.

     b) *aɣa꞊ddáy-kat   t-a-lágas-t.*
         1s꞊deal-VEN   F-SG-melon-F.SG
         I bought a melon.

     c) *a꞊b-dáy-an   táyni.*
         3s꞊IMPERF-deal-ALL date
         he sells dates.

For some verbs the directional suffixes are so much part of the verb that the root cannot be used without the morpheme. The noun 'forgetfulness' is *diŋgá*, the verb 'to forget' does not occur without the suffix *-an* ALL.

(41)   *aɣa꞊ddiŋ(á)-an hé   fó.*
         1s꞊forget-ALL   thing IND
         I forgot something.

Likewise 'to continue to do' *yillán-an* always has the suffix.

(42) *yíllan-an   ənd(a)   alħál   aɣó   (á)yda!*
     continue-ALL COMV   behavior   DET   DEM.PRX
     continue this behavior!

The verb *fúr* 'to throw' can take the suffix *-an* 'to throw away'. When this form is used with a non-human agent people give the meaning 'to be lost'.

(43) *aɣa=n   t-ée-ɣar-t   a=ffur-án.*
     1s=GEN   F-SG-bowl-F.SG   3s=throw-ALL
     my bowl is lost.

With the verb *yíkti* 'to remember/be reminded of' the centripetal suffix *-kat* is almost always present.

(44) a) *aɣa-yyíkti-kat   sa...*
      1s=remember-VEN COMP
      I remember that...

     b) *a=yyíkti-kat   aɣáy aɣ=n   áyyaw.*
        3s=remember-VEN 1s.IO 1s=GEN   nephew
        he reminds me of my nephew.

Non-directional verbs such as 'see', 'sneeze' or 'find' can also take the directional suffixes. From the analysis of narratives we find that this device is regularly used to indicate the center of attention or whom the narrator considers to be the main actor in the deed. The feature is also used to show perspective within the story.

3.1.4 Verb Inflection

In his Songhay grammars Heath talks about the 'verb phrase structure' when he addresses inflection and Mood-Aspect-Negation (MAN) morphemes. What is a verb phrase in Mainstream Songhay shows the behavior of a verbal word in Tadaksahak, i.e. inflection and the verb stem form a unit that cannot be cut into separate words. Such behavior is well known and normal for Berber languages. Person, number, MAN and the stem form a single unit with prefixes, infixes, suffixes and vowel changes, as well as certain stress patterns.

In Tadaksahak the inflected verb must contain person/number, MAN, and the verb stem regardless of the presence of a noun phrase. This is different from Mainstream Songhay where there is no obligatory agreement of person/number when an overt noun phrase is present.

The Tadaksahak structure with obligatory person reference regardless of the presence or absence of an NP is reminiscent of Tamasheq.

Two of the six person-clitics have an allomorph depending on the shape of the following MAN-morpheme (see below). One clitic re-syllabifies when followed by two of the MAN-morphemes (Phonology 2.4.2.2). In addition, the inflected verb has only one stressed syllable, typically on the verb stem.

In the following sections the subject clitics and the MAN morphemes are presented. Together with the verb stem they form the verbal word. The scheme below summarizes the possible elements found in the verbal word. The elements in brackets indicate that they are optional.

(45)   *Elements of the verbal word*

subject clitic	MAN	**stem**	(3rd person direct object)

3.1.4.1   Subject clitic

All inflectional morphemes in Tadaksahak are prefixed except for the direct objects pronominal clitics. The categories they represent are person (1st, 2nd, 3rd) and number (singular, plural). Unlike Tamasheq but according to the general Songhay pattern, no distinction between masculine and feminine is made in pronominal elements. Subject clitics will be glossed as 1s, 2s, 3s, 1p, 2p and 3p

(46)   *Subject clitics:*

singular		plural	
aɣ(a)=	1s	*ar(ə)=*	1p
ni=/ən=	2s	*andə=*	2p
a=	3s	*i=*	3p

The two first-person clitics have an allomorph determined by the following syllable. With the MAN markers of the shape CV- the short subject clitic, *aɣ-* is used (and pronounced [ax] before *sə-* and *tə-* see Phonology 2.4.1.3), while the MAN markers of the shape C- are preceded by the longer form, *aɣa-*.

(47) *aɣ=tə-qaarán*   *aɣa=m-qaarán*
        1s=FUT-study   1s=SUBJ-study
        I will study.   I may/should study

        aɣ=sə-qaarán   *aɣa=f-qaarán*
        1s=NEG.IMPERF-study   1s=IMPERF-study
        I do not study / I am not ...   I study / I am studying

        aɣ=nə-qaarán   *aɣa=qqaarán*
        1s=NEG.PERF-study   1s=study
        I did not study.   I studied.

The second person singular undergoes resyllabification when preceding the CV- shaped MAN morphemes *sə-* and *tə-* (Phonology 2.4.2.2).

(48) *ən=tə-qaarán*   *ni=m-qaarán*
        2s=NEG.IMPERF-study   2s=SUBJ-study
        you will study.   you may / should study.

        ən=sə-qaarán   *ni=f-qaarán*
        2s=FUT-study   2s=IMPERF-study
        you do / will not study.   you study / you are studying.

        ni=nə-qaarán   *ni=qqaarán*
        2s=NEG.PERF-study   2s=study
        you did not study .   you studied.

The other clitics do not change their shape whatever the shape of the following MAN marker.

3.1.4.2   Mood-Aspect-Negation (MAN) morphemes

The paradigm of MAN markers shows five morphemes, labeled as follows:

> imperfective (IMPERF)
> subjunctive (SUBJ)
> future (FUT)
> negative imperfective (NEG.IMPERF)
> negative perfective (NEG.PERF)

These morphemes are mutually exclusive, and can never be combined.

The perfective is unmarked; however, due to phonological rules (see 2.4.1.7.2), there is gemination of the initial consonant of the verb in

this aspect.

All other markers are marked by a single consonant or have the pattern Cə-.

(49) *MAN paradigm:*

	affirmative	negative
perfective	-	*nə-*
imperfective	*b-/bə-/f-*	*sə-*
future	*tə-*	
subjunctive	*m-*	

The imperfective marker appears in three forms. They are conditioned by the following consonant of the stem.

f-	before voiceless plosives
bə-	with *b*-initial verbs
b-	elsewhere

This is illustrated below:

(50) *Devoicing of* b- *morpheme*

C	3p-IMPERF-verb	gloss
/t/	*a꞊f-tudú*	s/he is responding
/d/	*a꞊b-dudú*	s/he is pouring
/c/	*a꞊f-ci*	s/he is saying
/j/	*a꞊b-jinjirí*	s/he is praying
/k/	*a꞊f-kuná*	s/he is finding
/g/	*a꞊b-guná*	s/he is seeing
/q/	*a꞊f-qaarán*	s/he is studying

(51) *Allomorph* bə- *with* b- *initial verbs*

3p-IMPERF-verb	gloss
a꞊bə-bəbbá	she is carrying (child) on the back
a꞊bə-báləgləg	it (fire) is crackling
a꞊bə-bállen	he is wrestling
a꞊bə-búkbuk	s/he is cleaning by hitting

	a꞊bə-bííbi	s/he/it is black

All y-initial verb roots, also those with Songhay etymology, lose their initial consonant before MAN markers consisting of a single consonant, i.e. the imperfective and the subjunctive.

(52)   b- *'imperfective' MAN deleting initial y-*

3p-IMPERF-verb	gloss
a꞊bb-éeri	s/he is throwing up
a꞊bb-éd	s/he returns
a꞊bb-ála	s/he rolls (rope)
a꞊bb-ə́gməm	s/he chews (habitually) (tobacco)
a꞊bb-aráɣ	s/he/it is yellow

(53)   m- *'subjunctive' MAN deleting initial y-*

3p-SUBJ-verb	gloss
a꞊mm-éeri	would that s/he throws up
a꞊mm-éd	would that s/he returns
a꞊mm-ála	would that s/he rolls (rope)
a꞊mm-ə́gməm	would that s/he chews (tobacco)

More discussion about the MAN system can be found under 4.2 in the syntax part.

3.1.4.3   Direct object clitic

Direct object pronominal markers fall into two groups. First and second person markers have no influence on the form of the preceding verb form. The third person direct object clitics *꞊a* 'him/her/it' and *꞊i* 'them', which consist of a single vowel, behave differently. They cause a final closed syllable of the verb stem to open and reveal a possible long vowel in this syllable. The other V-initial direct object pronouns do not open the preceding closed syllable. This indicates that *aɣáɣ* 1s.O, *áari* 1p.O and *ándi* 2p.O are not closely knit to the verbal word. *nín* 2s.O starts with a consonant and cannot influence a preceding closed syllable.

(54)   *Direct objects*

    a)   3s꞊pound

       a꞊ddút   s/he pounded.

       a꞊ddút áari hayní   s/he pounded millet for us.

       a꞊dduut꞊á   s/he pounded it (millet).

    b)   3s꞊finish

       a꞊bbén   it is finished.

       a꞊bbén áari   s/he finished us.

       a꞊bbeen꞊á   s/he finished him/her/it.

The last possible element of the verbal word is the third person direct object clitic.

3.1.5 Adverbs

There are only a few adverbs that modify verbs. Manner is often part of the meaning of the verb. Time and space expressions are abundant but most of them are noun phrases used adverbially. We present here only the manner adverbs and three spatio-temporal adverbs.

3.1.5.1   Manner

The only manner adverbs which are regularly used are the following:

(55)   *Manner adverbs*

    ʒik   quickly

    sallánda   carefully

    húllən   much

Many verbs contain a 'manner' component and need therefore not be modified, e.g. *tǽləss-ət* 'to walk lightly', *yíḍṛən* 'to return quickly'.

Expressions like 'doing a lot of something' or 'doing something of good quality' are expressed as a verbal noun construction (4.3.3.1).

3.1.5.2   Spatio-temporal

The three most important deictic adverbs (and adverbial phrases) are listed below.

(56)   Spatio-temporal adverbs

néeda	here
sénda ~ asénda	there
marád-óoda	now

néeda 'here' has a cognate in KCH /nee daa/ 'right here'.

The distal counterpart *sénda ~ asénda* 'there' seems to go back partly to Tamasheq. Prasse et al. (2003:727) list /sen/ 'towards there, in that direction' Added on this element is the emphatic particle *da* 'exactly'. For the demonstrative use of *sénda ~ asénda* 'that' see 4.1.3.1 and 4.1.4.1.

The temporal expression *marád-óoda* 'now' is composed of a 'time' element *marád* and the demonstrative *óoda* 'this'. Another related term, *marád-da* 'right now', has the same initial element followed by the emphatic particle *da* 'exactly'. *marád* does not occur in isolation. However, it has a cognate in /mareyda/ 'now' in KCH. (Heath 1998a:199).

3.2   Nouns, pronouns, adjectives, numerals

3.2.1   Basic structure of nouns

In the introduction to the morphology the effect of etymological origin in the morphological behavior of verb roots was shown. Nouns behave in a similar way: Songhay nouns are formed differently and their morphology is quite different from that of nouns coming from Tamasheq.

The basic noun structure can be presented in two schemes. One group of nouns has no prefix and covers most of the Songhay cognates, Arabic loans and some Tamasheq nouns. The other group has a prefix and mostly consists of nouns from Tamasheq.

Type 1:   nouns without prefix

     (prefix)   - STEM - (suffix)

     (number)   (number)
      only pl   only pl

Type 2:   nouns with a prefix

     prefix   - STEM -   (suffix)

     number   (number)   (number)

     (gender)   (gender)

Type 1 nouns mark plural by means of a suffix or a prefix, but not generally both. The absence of a plural morpheme indicates the inherent singular number of the noun.

Type 2 nouns always have a prefix that marks number. Both singular and plural are explicitly marked. Plural may be marked by a suffix and/or by a certain vowel pattern. If gender is expressed, it is always marked in the prefix, and sometimes also in the suffix. When a plural suffix is present the gender suffix is absent.

Nouns may consist of one syllable; however the majority of the nouns have two or three syllables. Some mono-morphemic nouns of four syllables are found.

3.2.2 *Gender*

Gender is a category which only plays on the lexical and derivational level. There is no gender agreement in the language. The only reason to consider gender a category in Tadaksahak is the existence of a lot of nouns which occur in two genders with a relatively clear semantic correlation between the choice of the gender and the meaning of the item. For those nouns which do not allow for a gender opposition, there is no grammatical reason to assign them to one or the other gender. However, in most elements derived from Tamasheq, the formal make-up of the noun makes use of the same elements which in gendered nouns (i.e. those allowing for the opposition) are used to mark the opposition.

Tadaksahak has two genders, which, following the grammatical tradition in Berber studies, will be referred to as masculine and feminine. Masculine gender has no formal expression, feminine gender is marked by means of the prefix *t-* and (in most singular nouns), the suffix *-t*, e.g. *ée-jaf / t-ée-jaf-t* 'dune / small dune'. In those nouns which allow for a gender opposition, the feminine marks some other meanings besides the natural gender of animals and humans. It can mark the diminutive, and it serves for some categories as a nominalizer.

The marker comes from Tamasheq where it is very productive. In Tadaksahak it is not only found with Tamasheq cognates but also observed with nouns of Songhay origin.

When a feminine noun is derived from a noun without a prefix, the prefix consists of the gender morpheme *t-* followed by the default number prefix *a-*. The two elements form a full syllable prefixed to the stem which entails a shift of the stress to the left on the resulting noun, e.g. *moʃaddí* 'paternal uncle' *t-a-moʃáddi-t* 'paternal aunt'.

3.2.2.1   Assimilation rules for the gender suffix -t

The suffix *-t* assimilates to the final consonants of the stem.

We have no evidence of /ʕ/, /ħ/ and /h/ being followed by *-t*. For the other consonants the following rules apply:

Liquids, semivowels and nasals remain unchanged.

Voiced plosives (particularly /b/) and fricatives are devoiced.

If C is any occlusive except /b/, *-t* is fully assimilated; the only trace of the suffix is the devoicing of the stem consonant.

If C is /ɣ/, it is amalgamated with *-t* to be realized as [q].

(57)   *Examples: unchanged adding* -t*:*

final C	without morpheme	with morpheme	gloss
/n/	*a-rgán*	*t-a-rgán-t*	adult camel (male/female)
/m/	*á-ɣlam*	*t-á-ɣlam-t*	riding camel (male/female)
/l/	*a-húlel*	*t-a-húlel-t*	foal of donkey

			(male/female)
/r/	*ée-ɣar*	*t-ée-ɣar-t*	cooking pot / receptacle (kind of)
/y/	*áa-way*	*t-áa-way-t*	kid/lamb (male/female)
/w/	*a-báʒnaw*	*t-a-báʒnaw-t*	old donkey (male/female)

(58)   *Devoicing with* -t

final C	without morpheme	with morpheme	gloss
/z/	*a-bóobaz*	*t-a-bóobas-t*	cross cousin (male/female)
/ʒ/	*ú-gmuʒ*	*t-ú-gmuʃ-t*	thumb (normal size/small)
/b/	*yírkəb*	*t-á-rkəp-t*	to pull / tyranny

(59)   *Devoicing and full assimilation of* -t.

final C	without morpheme	with morpheme	gloss
/d/	*t-ə-sə́-smad*	*t-a-sə́-smət-t*	points / point
/ḍ/	*a-máawaḍ*	*t-a-máawaṭ-ṭ*	young boy / young female animal
/g/	*t-ə́-zbug-an*	*t-á-zbuk-k*	ropes / rope of waterbag
/q/	*almunáafiq*	*t-almunáafiq-q*	wicked person (male/female)

(60)   *Development of /ɣ/* + -t

final C	without morpheme	with morpheme	gloss
/ɣ/	*a-ʃáqaɣ*	*t-a-ʃáqaq-q*	brother / sister
	t-ə́-lɣ-in	*t-ée-laq-q*	knives / knife

Gender morpheme encodes various meanings in Tadaksahak. Several meanings are the same as in Tamasheq.

3.2.2.2   Natural gender

The gender opposition is used very productively to oppose a female being to its male counterpart. The feature is encountered with humans as well as with animals. The nomadic culture depending on female animals for reproduction and milk as daily nourishment has a large array of nouns for these items. Many kinship terms are found with this feature.

The first group (a) shows nouns of human beings. Under (b) wild and domesticated animals are listed. (c) gives an exception: the female form 'kid' is irregular. Note that 'young cow' *t-áa-ɣit-t* is the feminine form expected from *áa-ɣid* 'male kid'. 'female kid' *t-a-ɣádit-t* is also used as a pet name for girls.

(61)   *Examples for female*

	male	female	gloss
a)	*a-bóobaz*	*t-a-bóobas-t*	cross cousin
	a-lúgus	*t-a-lúgus-t*	sister/brother in law
	a-má-ʒgol	*t-a-má-ʒgol-t*	handsome man/beauty
b)	*áa-har*	*t-áa-har-t*	lion/lioness
	a-báʒnaw	*t-a-báʒnaw-t*	old donkey
	áa-ɣu	*t-áa-ɣi-t*	young bull/cow
	a-lágoḍ	*t-alágoṭ-ṭ*	baby camel, male/female
c)	*áa-ɣid*	*t-a-ɣádit-t*	(goat) kid

Two Songhay cognates in our corpus take the morpheme to mark the opposition male/female. They are shown below.

(62)   *Songhay cognates with feminine gender morpheme*

male	*female*	gloss
ʒeemí	*t-a-ʒéemi-t*	blacksmith
bəkáw	*t-a-bə́kaw-t*	jinn

In contrast *hánʃi* 'dog', also a Songhay cognate, cannot be combined with the feminine morpheme. The term is suppleted by a Tamasheq

cognate with the feminine marker: *t-a-báykor-t* 'bitch'; its logical masculine counterpart (well-attested in Tamasheq) **a-báykor* is not used in Tadaksahak.

A number of animals are only used in forms with the feminine marker (illustrated under (a) below). Other words for female animals, however, have no marker because they are of Songhay origin. Interestingly, these nouns are suppleted by Tamasheq masculine nouns. The nouns under (b) give the name of the male animal used for reproduction and a general term for the female animal. Many terms for sub-categories of these animals are attested in both gender forms.

(63)   Terms for animals

	male	female	gloss
a)		*t-á-ɣamu-t*	cow without calf
		t-a-sákaf-t	cow without calf
		t-a-zabána-t	ewe having given birth twice in one year
b)	*a-zóolaɣ*	*hinciní*	billy goat / (she-)goat
	á-krar	*feejí*	ram / sheep (ewe)
	a-ḍéṣ	*hawú*	bull / cow
	a-rgán	*yáw*	stallion / female camel

The last term *a-rgán* 'big, male camel' is also found with the feminine affixes in order to designate a particularly tall female animal.

Some informants allow the term 'horse' to take the feminine morpheme for the female animal: *baarí* 'horse (male)', *t-a-báari-t* 'mare'. This term follows a different pattern from the one shown in the list above where the general Songhay noun designates the female animal.

Ethnic names can all take the feminine marker when a woman of that group is designated. At the same time this word is the expression used for the name of the language of the group. *a-ffúulen > t-a-ffúulen-t* 'Peul', *bambará > t-a-bambára-t* 'Bambara'.

3.2.2.3 Diminutive

Another meaning conveyed by the feminine marker is 'smallness'. Regular size items have no marker and the small variety takes it. This is illustrated under (a) on the list below. In many cases, the feature may be still present, but the meaning is rather lexicalized (b), and the difference goes beyond that of size. (c) illustrates another meaning of 'small' as 'less capable of doing something'. It is always a man who plays the guitar, so 'female' is no alternative reading for this noun.

(64)   Diminutive

	regular size	small size	gloss
a)	*a-báktaw*	*t-a-báktaw-t*	cushion
	ú-gmuʒ	*t-ú-gmuʃ-t*	thumb
	a-ɣázar	*t-a-ɣázra-t*	temporary pond
	a-jíirar	*t-a-jíirar-t*	river bed
b)	*a-kábar*	*t-a-kábar-t*	wooden milk receptacle (camel; sheep/goat)
	ée-ɣar	*t-ée-ɣar-t*	cooking pot; pot
	á-llaɣ	*t-á-llaq-q*	spear; carved stick (kind of)
	éelaɣ	*t-ée-laq-q*	bone (kind of); knife
c)	*ággu*	*t-ággu-t*	player of traditional guitar; (male) learner of traditional guitar

Diminutive is not always a relevant factor in this kind of opposition. In fact, in a number of lexicalized items, the feminine refers to something bigger than the masculine.

(65)   Irregular pairs

	á-lkas	*t-á-lkas-t*	tea glass; calabash
	a-ná-ẓmay	*t-a-ná-ẓmay-t*	needle; sewing machine
	a-máaṣur	*t-a-máaṣur-t*	forearm; force
	á-mrar	*t-á-mrar-t*	neck rope (baby camel); halter (adult camel)

A few Songhay cognates can take the feminine marker to mark the diminutive:

(66)   *Diminutive on Songhay cognates*

karfú	*t-a-kárfu-t*	rope
hamborí	*t-a-hambóri-t*	mortar
cíidaw	*t-a-cídaw-t*	bird

Note the stress shift of the two first expressions with the prefixed full syllable.

Many nouns have feminine morphology, but do not allow for gender opposition. Sometimes, this seems to be linked to the inherent semantics of the word, as in *t-a-ḷíceṭ-ṭ* 'little finger'.

One group of nouns which very regularly has feminine morphology, but that does not allow for a gender opposition are names for trees and shrubs. There are some exceptions with names of southern species and recently imported kinds. Only very few local trees have no *t-…-t* marker. (a) lists names with the morpheme. (b) gives some local trees without the morpheme.

(67)   *Tree names*

	name	scientific name
a)	*ṭ-áa-ma-ṭ*	acacia (Acacia ehrenbergiana)
	t-ággar-t	acacia (Acacia nilotica)
	t-á-ẓay-t	acacia (Acacia senegal)
	t-á-dɣəm-t	baobab tree (Adansonia digitata)
	t-a-ʒáyin-t	jujube tree (Ziziphus mauritiana)
	t-a-bóoraq-q	wild date tree (Balanites aegyptiaca)
	t-áa-dan-t	shrub (Boscia senegalensis)
b)	*óoruf*	acacia (Acacia seyal)
	á-ffagag	acacia (Acacia raddiana)
	a-ɣarzə́bbi	acacia (Acacia pennata)

name	scientific name
a-dáras	tree (Commiphora africana)

In one case, the fruit of the tree is referred to by means of the masculine form: *a-bóoray* 'fruit of wild date tree' *t-a-bóoraq-q* 'wild date tree'. In most cases the fruits of these trees have names with no relation to the name of the tree. An exception is *t-a-ráka-t* 'shrub (Grewia tenax or Grewia mollis)', a term which also refers to the fruit.

The use of the feminine morpheme in nominalization will be treated below (3.2.4.3).

3.2.3   Plural

All nouns are marked for number. When no overt number marking is present the noun is interpreted as singular.

Even when taking into account the difference between two types of basic nouns, rules for the formation of the plural are quite complicated.

Songhay of Gao (KS) distinguishes a definite and an indefinite plural morpheme. Tadaksahak nouns are not marked morphologically for 'definiteness', and have therefore no opposition between definite and indefinite plural forms.

Type 1 nouns have four different subclasses regarding pluralization. In broad terms they can be grouped etymologically. One class represents nouns from Songhay, one class includes nouns from languages other than Tamasheq or Arabic, the third class covers many Arabic loans. And finally the last class covers Tamasheq cognates without a prefix.

Type 2 nouns often have cognates in Tamasheq and use a whole set of possible vowel schemes and suffixes also found in that language. Yet the scheme used for a particular noun in Tadaksahak does not necessarily correspond to the one used in Tamasheq.

3.2.3.1   Type 1 noun plurals

There are four different schemes for plurals of type 1 nouns.

(68)   *Type 1 nouns: Plural morphemes*

1)			*-en/-an*
2)		STEM	*-tan*
3)	*id-*		
4)			*-an*

3.2.3.1.1   *Class 1: -en/-an, -yen/-yan*

Class 1 concerns etymological Songhay nouns.

-en PL may be related to Songhay /yan/, the indefinite plural morpheme, but the exact historical processes behind it are not yet clear.

When the suffix is joined to a vowel-final stem, the final vowel of the stem is dropped. This is illustrated under (a) below. *-en* is the default form; the allomorph *-an* occurs when the root has /e/ in the stem. This is illustrated under (b).

(69)   *Songhay cognates*

	singular	plural	gloss
a)	*borá*	*bor-én*	person/people
	bundú	*bund-én*	stick
	booʃí	*booʃ-én*	ashes (kind of)
	jinjirí	*jinjir-én*	prayer
b)	*ceedí*	*ceed-án*	spoon
	deedí	*deed-án*	Arabic gum
	geení	*geen-án*	louse
	feejí	*feej-án*	sheep
	yeerí	*yeer-án*	vomiting

For di- or tri-syllabic nouns stress does normally not change as illustrated above and in the list below.

(70)   Plurals without stress shift

	singular	plural	gloss
	tugúdu	tugúd-en	tree/wood
	báaɣa	báaɣ-en	love/preference
	gánda	gánd-en	earth/ground
	almán	almán-en	herd (of animals)

Monosyllabic stems behave differently. Only a small number keep the stress on the stem (b) (marked with ^ over the vowel) whereas the majority shift stress on the plural morpheme (and any long vowel in the stem is realized). See illustrations under (a).

(71)   Monosyllabic stems

	singular	plural	gloss
a)	cáw	caaw-én	call
	mún	muun-én	pouring
	héw	heew-án	wind
b)	mân	máan-en	name
	gôn	góon-en	swallow
	bêr	béer-an	older sibling
	fûn	fúun-en	hole

Some noun stems with a velar stop as their last consonant undergo phonological changes (see a) below). These changes are not predictable since some stems do not change, as illustrated under (b) below:

(72)   Palatalization of g/k preceding plural suffix

	singular	plural	gloss
a)	hangá	hanj-én	ear
	bangú	banj-én	well
	angú	anj-én	place
	farká	farc-én	donkey
b)	hinká	hink-én	two

singular	plural	gloss
gungú	*gung-én*	belly

This class is exclusively of Songhay stock but does not cover all Songhay cognates found in Tadaksahak.

There exist a few items that take a /-yVn/ plural morpheme. In all cases a /w/ precedes the plural morpheme. The noun 'jinn' is of uncertain origin whereas 'cow' and 'bowl' have Songhay cognates.

(73)   *Rare plural with* -yen/-yan

singular	plural	gloss
bəkáw	*bəkáw-yan*	jinn
hawú	*haw-yén*	cow
tú	*tuw-yén*	large wooden bowl

3.2.3.1.2   Class 2: -tan

Many vowel-final nouns take this suffix as well as nouns borrowed from languages other than Tamasheq or Arabic.

Under (a) we illustrate vowel final stems of local origin. Many nouns ending in /o/ use this pattern. (b) gives some items of other languages, ending in both consonants and vowels using this same morpheme.

(74)   *Vowel final nouns:*

	singular	plural	gloss
a)	*állo*	*állo-tan*	food for a journey
	áaṣi	*áaṣi-tan*	side of the belly
	íiba	*íiba-tan*	loss
	bukturú	*bukturú-tan*	toad
	heebú	*heebúu-tan*	market
	biŋgí	*biŋgíi-tan*	male donkey (KS *biɲji*)
	bána	*bána-tan*	salary (KS *bana* 'pay')
	booráy	*booráy-tan*	giraffe (KS: *bura*)
b)	*kássaw*	*kássaw-tan*	prison (< French *cachot*)

bídaw	*bídaw-tan*	canister (< French *bidon*)
fátaw	*fátaw-tan ~* *fát-an*	manufactured recipient (< English *pot*)
fatílla	*fatílla-tan*	flashlight (KCH *fitila* < Arabic *faṭiila* 'wick')
aragó	*aragóo-tan*	radio (< French *radio*)
bitígi	*bitigíi-tan*	shop (< French *boutique*)

When speakers are not sure about a plural for a certain noun they often offer *-tan*, which seems to be the strategy that is allowed and understood even if it is not necessarily the 'correct' one.

3.2.3.1.3   Class 3: *id-*

This class mostly consists of loans from Arabic. These nouns are also present in Tamasheq, but form their plural in a different way, e.g. Tamasheq: /ǎlwǎli/ 'saint' pl: /ǎlwǎli-tǎn/ as compared to Tadaksahak *alwalí* pl: *id-álwali* .

All examples consist of nouns taken over with the Arabic article. The examples under (a) show forms where the article is not assimilated, while the forms under (b) have the regular Arabic assimilation of *al-* to following coronal consonants.

(75)   Plurals of Arabic loans

	singular	plural	gloss
a)	*alwalí*	*id-álwali*	saint (< Arabic)
	aḷbáaṛuḍ	*id-aḷbáaṛuḍ*	gun (kind of) (< Arabic)
	alkáda	*id-álkada*	bowl for milk (kind of) (< Arabic: *qadaħ*)
	álham	*id-álham*	rage (< Arabic)
b)	*attahalíl*	*id-attahalíl*	leather sheath around book (< Arabic)
	assóq	*id-assóq*	market (< Arabic)
	assáħ	*id-assáħ*	strength (< Arabic)
	annabí	*id-ánnabi*	prophet (< Arabic)
	aʃʃák	*id-áʃʃak*	doubt (< Arabic)

singular	plural	gloss
attaʕám	*id-áttaʕam*	staple food (cereal) (< Arabic)
assúwak	*id-ássuwak*	teeth cleaner (< Arabic)
Aʃʃaríf	*Id-áʃʃarif*	clan name (< Arabic)

For many of the examples above the addition of the prefix leads to a stress shift to the left. When a shift occurs, stress falls on the first syllable of the noun after the prefix.

Some exceptions are found in our corpus where this pattern does not hold. The noun *adiktáb / id-idíktab* 'booklet' changes the initial /a/ to /i/ after the prefix *id-*. Some more Arabic nouns ending in a vowel add the *-tan* suffix of class 2 to the normal prefix, e.g. *alfáqi / id-alfáqi-tan* 'religious teacher'. The term for '(tea) glass' has changed category and forms the plural like a Tamasheq cognate, i.e. *á-lkas / í-lkas-an*.

Some informants give different forms from those on the list, e.g. instead of *id-álkada* 'milk bowls' and *id-assáħ* 'strength pl.' they use *id-alkáda-tan* and *id-ássaħ-en* 'strength pl'. This may be an indication that some of these infrequently used plurals are not rigidly established.

3.2.3.1.4   Class 4: -an

In a small number of Tamasheq cognates the first part of the noun resembles the nominal prefix, but pluralization either does not affect the vowel quality, or affects it in an irregular way. Therefore, we consider these nouns to be prefixless in Tadaksahak (whatever their status in Tamasheq). This class is supplemented by a small number of nouns which do not have the shape of a prefixed noun at all. They divide into smaller subclasses that behave in different ways. One class adds the regular suffix for Tamasheq cognates *-an* to the unchanged stem. These nouns may be consonant- or vowel-initial. Under (a) on the list below consonant-initial nouns are given and (b) vowel-initial nouns.

(76)   *Tamasheq cognates without prefix*

	singular	plural	gloss
a)	*téɣsa*	*táɣs-an*	sheep/goat

	singular	plural	gloss
	fáḍaṇ	*fáḍaṇ-an*	other
	sáwsut	*sáwsut-an*	mat (kind of)
	tíidi	*tíid-an*	sweat
b)	*áafol*	*áafol-an*	edge
	áarab	*áarab-an*	Arab
	éekat	*éekat-an*	measure
	áwrəʒ	*áwrəʒ-an*	heel

A few vowel initial disyllabic stems re-syllabify and then add the plural suffix. The syllable after the initial long vowel is collapsed and forms two syllables with the shortened initial vowel and the plural suffix, e.g. V:-C$_1$VC$_2$ becomes V-C$_1$C$_2$-an. The examples are below.

(77)   *Plurals with re-syllabification*

	singular	plural	gloss
	éelaw	*élw-an*	elephant
	éeṛəṣ	*érṣ-an*	depression (ground)
	íiləs	*íls-an*	tong
	íidəm	*ídm-an*	supplication

The term *éelaɣ* 'kind of bone' does not shorten the initial /e/ when resyllabified *éelɣ-an.*

One noun of this pattern takes the suffix *-in* instead of regular *-an*: *óoruf / órf-in* 'tree, sp.'.

3.2.3.2   *Type 2 noun plurals*

Nouns of this type have a prefix that marks them for singular. This is mostly *a-* and in some cases *e-* or *u-*. The prefix is replaced by a plural prefix *i-* in all cases.

The following overview shows some of the possibilities for forming plurals for this type of noun. Combinations of the different formations are also possible and some commonly used nouns allow for two different plural forms.

(78) Type 2 nouns: Plural morphemes

prefix	stem	suffix
i-		*-an / -en / -ən / -in*
i-		*-tan*
i-	apophony	*(-an)*
i-	resyllabification	*(-an)*
t-ə-		*-in / -an*

The morphemes between brackets indicate that the majority of the nouns do not take this morpheme but that a smaller number of nouns take the suffix in addition to the other plural marking features.

In the paragraphs below the different patterns will be illustrated and discussed.

3.2.3.2.1 Plural pattern /i-STEM-an/

The pattern /i-STEM-an/ is the most frequent plural pattern. The suffix shows different vowel qualities. The preceding vowels in the stem give some indications of which suffix to use but there are many exceptions to this. When the stem vowel is non-high vowels (/o/, /e/ and /a/), the suffix tends to have a low vowel. This is illustrated under (a) below. In addition, stems with a consonant cluster preceding the plural morpheme take /-an/. See illustrations under (b). The suffix has schwa when it is preceded by a high vowel (/i/, /u/, /ə/) in an open syllable. See examples under (c).

(79) Plural scheme /i-...-an/ and variants

	singular	plural	gloss
a)	*a-náftaɣ*	*i-náftaɣ-an*	visitor
	á-mɣar	*í-mɣar-an*	old man
	á-ɣlal	*í-ɣlal-an*	trough
	a-báydog	*i-báydog-an*	thief
	a-bóobaz	*i-bóobaz-an*	cross-cousin
	a-fáẓaẓa	*i-fáẓaẓ-an*	honey badger
	á-ɣalla	*í-ɣall-an*	court wall

	singular	plural	gloss
	a-ʃíggel	*i-ʃíggeel-an*	lost animal
	a-bə́kkel	*i-bə́kkeel-an*	skinny animal
	a-lánjez	*i-lánjez-an*	drum (kind of)
b)	*á-triʃ*	*í-tərʃ-an ~ í-triʃ-en*	wound
	a-maɣálʃa	*i-maɣálʃ-an*	jaw (bone)
	a-ɣáʃinʃa	*i-ɣíʃinʃ-an*	bone (kind of)
		i-ʒíbʒ-an	gift given at the naming ceremony
c)	*a-náɣfil*	*i-náɣfil-ən*	clove
	a-ɣéeɣər	*i-ɣéeɣər-ən*	meat (kind of)
		í-ɣməm-ən	milk (kind of)
		i-góriʒ-ən	black solution

Only very few items take the variant /-en/ and /-in/ of the suffix. When the suffix is preceded by a high vowel (/i/, /u/) in an open syllable and the last consonant is a sibilant, most often /-en/ is used (but consider the last example above). This is illustrated under (a) below; (b) provides an item with the /-in/ plural ending.

(80)   *Plurals with /i-…-en/ and /i-…-in/*

	singular	plural	gloss
a)	*ú-gmuʒ*	*í-gmuʒ-en*	thumb
	á-triʒ	*í-triʒ-en*	hail
	á-triʃ	*í-triʃ-en ~ í-tərʃ-an*	wound
		í-zr-en	endurance
		i-sk-én	comb
b)	*a-rgán*	*i-rgáan-in*	camel (kind of)

3.2.3.2.2   Plural pattern /i-STEM-tan/

This minor plural pattern is found with nouns ending in a vowel. Not all nouns ending in a vowel take this suffix.

(81)   *Plural scheme /i-...-tan/*

singular	plural	gloss
a-bútu	*i-bútu-tan*	navel
A-dóogiri	*I-dogíri-tan*	clan name
a-balibáali	*i-balibáali-tan*	sheep breed (kind of)
á-gaŋgo	*i-gáŋgo-tan*	croup
á-ɣaba	*i-ɣába-tan*	bit (horse)
áa-la	*íi-la-tan*	(tea) leaf

3.2.3.2.3   Plural patterns with apophony

Several patterns of apophony are found in Tadaksahak. The vowel pattern of the noun in the singular does not seem to be important. Different vowel combinations of the noun in the singular can turn into a same plural pattern.

3.2.3.2.3.1   Plural pattern i-CuC(C)aC

This plural pattern is found with the structure a-CVC(C)VC. While there are many possible vocalizations in the singular, the plural always has the same pattern.

(82)   *Plural pattern i-CuC(C)aC*

singular	plural	gloss
a-rázum	*i-rúzam*	bag for cereal
a-wátay	*i-wútay*	year
a-sáabəl	*i-súubal*	seam
a-ɣáanib	*i-ɣúunab*	pen
a-máagor	*i-múugar*	camel (kind of)
a-ɣéetas	*i-ɣúutas*	branch (kind of)
a-húllum	*i-húllam*	rope (kind of)
a-húrhur	*i-húrhar*	hair stripe (kind of)

Stress and long vowels do not change with apophony.

3.2.3.2.3.2 Plural pattern i-CəC(C)aC

This plural pattern is found with the nouns of the shape a-CVC(C)VC. Most singulars have /o/ in the last syllable. This is illustrated under (a). Also nouns with homophonous vowels in the singular are found in this group. The examples are under (b). The last example (c) on the list shows that the above described singular patterns are not the only vowel patterns that can take this plural scheme.

(83)   Plural pattern i-CəC(C)aC

	singular	plural	gloss
a)	a-bákot	i-bə́kat	old tent skin
	a-maḍoṇ	i-mə́ḍaṇ	pasture
	a-bátol	i-bə́tal	shrub formation
	a-zábzod	i-zə́bzad	eyebrow
	a-báryom	i-bə́ryam	kid (kind of)
b)	a-sə́ggən	i-sə́ggan	place of rest
	a-bə́lbəl	i-bə́lbal	bowl (kind of)
	a-ḷúkkuḍ	i-ḷə́kkaḍ	whip
	a-sútfur	i-sə́tfar	blanket (kind of)
c)	a-fándis	i-fə́ndas	half-brother

Schwa may undergo assimilations. The following examples show that the same i-CəC(C)aC plural pattern can be realized with an /i/ in the place of /ə/ when the preceding consonant is palatal. The examples are under (a). If the consonant following /ə/ is /ɣ/ then it is realized as /a/.

(84)   Variant of plural pattern i-CəC(C)aC

	singular	plural	gloss
a)	a-cílcil	i-cílcal	marrow
	a-ʃábḍoṛ	i-ʃíbḍaṛ	sacrifice
b)	a-sáɣon	i-sáɣan	rope (kind of)
	a-ʒáɣol	i-ʒáɣal	castrated ram
	á-maɣo	í-maɣa	rope (kind of)

3.2.3.2.3.3   *Plural pattern i-CaC(C)an*

This plural pattern is not frequent. Singular stems containing non-low vowels can take this pattern. The examples are under (a). The examples under (b) illustrate how the apophony influences the realization of the consonants in the stem.

(85)   *Plural pattern i-CaC(C)an*

	singular	plural	gloss
a)	*a-lílli*	*i-láll-an*	noble person
	a-dími	*i-dám-an*	gazelle, sp.
	áa-guz	*í-gaz-an*	sinew (kind of)
	a-ɣéɣi	*i-ɣáɣ-an*	crevice
	a-kóko	*i-kák-an*	tree, sp.
b)	*a-jíji*	*í-gag-an*	luggage
	a-bíji	*í-bag-an*	hyena

Another group of nouns exposes this same pattern with different vowels in the singular stem. Some of them expose non-low vowels in the stem which would classify them in the list above. However, they all systematically geminate the final consonant of the stem and some expose low vowels in the stem.

(86)   *Duplication of stem final C*

singular	plural	gloss
áa-har	*í-harr-an*	lion
áa-gur	*í-garr-an*	castrated animal
áa-z̧əz̧	*í-z̧azz̧-an*	vulture, sp.
áa-fiṛ	*í-faṛṛ-aṇ*	extend
áa-jit	*í-jatt-an*	plate of salt
áa-dəf	*í-daff-an*	bone (kind of)
ée-ɣar	*í-ɣarr-an*	cooking pot
ée-z̧aṛ	*í-z̧aṛṛ-an*	shoulder
ée-jaf	*í-jaff-an*	dune

3.2.3.2.4 Plural pattern with resyllabification and /-an/

This pattern involves stems with two syllables. The vowel of the first syllable is neutralized to schwa and the second syllable is collapsed to form a new syllable with the suffix, e.g. a-$C_1VC_2VC_3$ becomes i-$C_1əC_2C_3$-an. See illustrations under (a) below. Very few nouns with the a-CCVC singular pattern also resyllabify to the above pattern. The examples are under (b).

(87)   Resyllabification and /-an/

	singular	plural	gloss
a)	*a-kábar*	*í-kəbr-an*	milk receptacle
	a-líkaf	*í-ləkf-an*	horse saddle
	a-lákat	*í-ləkt-an*	branch (kind of)
	a-lámis	*í-ləms-an*	(guinea fowl) chick
	a-mález	*í-məlz-an*	milk (kind of)
b)	*á-krəm*	*í-kərm-an*	dry piece of Arabic gum
	á-ɣrəm	*í-ɣərm-an*	town/village

3.2.3.2.5 Minor plural patterns

The following plural patterns described do not involve more than a handful of items.

3.2.3.2.5.1 Stems with final /w/ and /y/

In type 1 and type 2 nouns there are stems with final /w/ and /y/ that display different behavior. Many nouns lose the final C and the vowel of the suffix is changed. In the case of /w/ the suffix contains /a/ also for Songhay cognates and with /y/ many suffixes are /-en/ instead of the expected /-an/ for Tamasheq cognates.

The list below illustrates di-syllabic nouns with final /w/. Words under (a) are Tamasheq cognates and those under (b) are Songhay cognates. The nouns under (a) lose the final consonant of the stem but the /-an/ suffix is the default for Tamasheq cognates. 'bird' is the item that exposes special behavior since this word should have the /-en/ suffix for plural. 'speech' has /ee/ in the stem and therefore must take /-an/ even as a Songhay cognate.

(88)   *Stems dropping -w#*

	singular	plural	gloss
a)	*a-máaṛaw*	*i-máaṛ-an*	relative (family)
	a-báktaw	*i-bákt-an*	old cushion
	a-ʃígnaw	*i-ʃígn-an*	thread (sew)
	ée-caw	*í-cc-an*	root
	áfraw	*áfr-an ~ í-fr-an*	feather; wing
b)	*cíidaw*	*cíid-an*	bird
	léelaw	*léel-an*	speech

Monosyllabic Songhay cognates do not lose the final /w/, i.e. 'insult' *wâw / wáaw-en* 'female camel' *yáw / yaaw-én*.

/y/ final nouns show more variety in behavior than the /w/ final nouns described above. For Songhay cognates the suffix /-en/ is expected. This is illustrated under (a) below. But there are Tamasheq cognates that also take this suffix as shown under (b).

(89)   *Stems dropping -y#*

	singular	plural	gloss
a)	*cáy*	*c-én*	leg; foot
	ṭaabáy	*ṭaab-én*	turban (general)
	caráy	*car-én*	friend
	ízzay	*ízz-en*	offspring; young animal; fruit
b)	*a-fártay*	*i-fárt-en*	mat (kind of)
	a-kárʃay	*i-kárʃ-en*	head scarf
	a-ẓə́mmay	*i-ẓə́mm-en*	leather stripe

A possible explanation for the Tamasheq cognates is that the final /y/ amalgamates with the suffix and raises the low vowel /a/ to /e/. Consider also the examples under 3.2.3.2.1 that take this plural suffix.

Two Songhay high frequency items, *kóy* 'owner, master' and *surgóy* 'woman', also drop their final /y/ in the plural but the vowel of the stem

is preserved. This leads to the plural forms *kó-n* and *surgó-n* respectively.

Final /y/ is not dropped in all cases. Monosyllabic type 1 nouns do not drop it and some type 2 nouns use other strategies for plurals than the above described behavior.

(90)   *Monosyllabic Songhay cognates with final /y/*

singular	plural	gloss
záy	*zayén*	swear (n)
wáy	*waayén*	woman

One item behaves like above Songhay cognates and adds a plural with /-en/ despite being of Tamasheq origin: *áaṇay / áaṇay-en* 'disgust'.

The following list gives examples of /y/-final Type 2 nouns that use different strategies than described above. The example under (a) takes the expected /-an/ suffix, but with gemination of the final /y/. (b) illustrates resyllabification with final /y/ and (c) apophony.

(91)   *Other strategies with /y/ final nouns*

	singular	plural	gloss
a)	*áa-way*	*í-wayy-an*	young (goat and sheep)
b)	*a-múgay*	*i-múgy-en*	camel (kind of)
	a-táɣay	*i-tə́ɣy-en*	bald head
c)	*a-ḍə́lay*	*i-ḍə́lay ~ i-ḍə́l-en*	lip
	a-wátay	*i-wútay*	year

3.2.3.3   Nouns with the prefix *t(a)-*

All the strategies described for the Type 2 nouns can be found with nouns with the feminine prefix *t(a)-*. The plural prefix *i-* for plurals is only realized as /i/ when the high consonants /y/ or /j/ follow immediately, e.g. *t-á-yhas-t / t-í-yhas* 'kind of saddle' or *t-ée-jaf-t / t-í-jaff-an* 'small dune'. Normally it is pronounced schwa.

The examples above show that the suffix -*t* of these nouns is always absent when the plural suffix is present. We can therefore expect that final /w/ and /y/ behave as in nouns without the suffix.

From Tamasheq it could be expected that the suffix would be -*en* for all these feminine nouns. In fact, some nouns have this suffix, but there are many that take the -*an* suffix. Resyllabification and apophony are observed and some of the minor patterns, too. In short, the whole array of possibilities for Type 2 nouns occurs.

The illustrations below show under (a) nouns with plural suffix -*in*. (b) has resyllabification of the last syllable and a stress shift together with the -*in* suffix. (c) shows nouns taking the regular -*an* suffix and one item with -*ən*. (d) shows two different kinds of apophony /i-u-a/ and /i-ə-a/. (e) lists /w/ final nouns that drop the consonant and nouns under (f) drop the final /y/ and realize an -*en* suffix.

(92)　　　*Nouns with the feminine marker*

	singular	plural	gloss
a)	*t-a-boɣán-t*	*t-ə-boɣáan-in*	old sheep
	t-a-gándar-t	*t-ə-gándar-in*	hole (kind of)
	t-á-ḍləm-t	*t-ə́-ḍləm-in*	wrong accusation
b)	*t-a-bákar-t*	*t-ə́-bəkr-in*	ewe
	t-a-dáɣan-t	*t-ə́-dəɣn-in*	stomach, sp.
	t-a-dáber-t	*t-ə́-dəbr-in*	pigeon
	t-á-far-t	*t-ə́-fr-in*	rope (kind of)
c)	*t-a-bóobas-t*	*t-ə-bóobaz-an*	cross cousin
	t-a-húlel-t	*t-ə-húlal-an*	female foal of donkey
	t-a-mandáras-t	*t-a-mandáras-an*	root, sp.
	t-á-blel-t	*t-ə́-blal-an*	grain; pearl
	t-a-ból-t	*t-ə-búul-an*	small heap
	t-á-lliʃít-t	*t-ə́lliʃíd-ən*	cushion
d)	*t-a-káafəṛ-t*	*t-ə-kúufaṛ*	European/Western woman
	t-a-búuɣer-t	*t-ə-búuɣar*	female camel

	singular	plural	gloss
	t-a-déekəlt	*t-ə-dúukal*	underside of hoof
	t-a-ɣádit-t	*t-ə-ɣə́dad*	female kid
	t-ə́-ddabi-t	*t-ə́-ddəba*	night (kind of)
	t-a-mázdoq-q	*t-ə-mə́zdaɣ*	homestead
	t-a-báykor-t	*t-ə-bíykar*	bitch
e)	*t-a-bálaw-t*	*t-ə-báll-an*	snail shell
	t-a-dícaw-t	*t-ə-dícc-an*	tent pole (kind of)
	t-ə́-draw-t	*t-ə́-dr-an*	skin fold
f)	*t-a-móɣsay-t*	*t-ə-móɣs-en*	carcass
	t-a-róday-t	*t-ə-ród-en*	fruit, sp.
	t-á-ẓay-t	*t-á-ẓẓ-en*	shrub, sp.

3.2.3.3.1   Some special plurals

There are many nouns that do not fit into the above slots without additional rules. Below are some particularly odd cases that we wish to present.

Some of these plurals invert consonants (a). Some nouns add a suffix /-wan/ (b). In some plurals consonants surface that are absent in the singular and vice versa (c). The items under (d) add a plural suffix with an intervening /w/ sound. (e) gives an item with the feminine prefix, apophony and *-wan* suffix, (f) shows a high frequency item with an irregular consonant pattern.

(93)   *Odd plurals*

	singular	plural	gloss
a)	*a-láweg*	*í-ləgw-an*	branch (kind of)
	a-bájez	*í-bəzg-an*	pot (kind of)
	a-rádaɣ	*i-rɣáad-in ~ í-rəɣd-in*	old goat
b)	*áa-ḍaḍ*	*í-ḍəḍ-wan*	finger
	áa-zar ~ á-zru	*í-zər-wan*	sinew

	singular	plural	gloss
c)	*t-áa-qas-t*	*t-ə́-wəɣs-in*	game (animal)
	a-ḍágaḷ	*i-ḍúuḷ-in*	father-in-law / in-law family
d)	*t-áa-ɣəssa*	*t-ə́-ɣəs-w-in*	body
	t-á-ssaga	*t-ə́-ssəg-w-in*	side
e)	*t-á-kooba*	*t-ə́-kab-wan*	sword
f)	*t-á-ŋgud*	*t-ə́-mgad-ən*	girl

3.2.3.3.2   Plurals without singular

A number of nouns are only found in the plural form. Semantically this includes items that appear as pairs (e.g. glasses) or designate a number of items that belong together (e.g. gifts for certain occasions), but also many natural liquids.

Find examples on the list below. (a) shows pairs, (b) other items and (c) natural liquids with Songhay cognates. Note that 'milk', *huuwá*, is not a plural despite being a liquid. (d) are liquids with Tamasheq cognates.

(94)   *Pairs and other plurals*

	plural	gloss
a)	*í-dmar-an*	chest
	i-fútu-tan	palms of hand
	ṭúurat-an	lungs
	t-ə-máswad-an	(sun) glasses
	í-gag-an	load (on animal)
b)	*i-kád-an*	fireplace (three stones)
	í-maʃw-an	moustache
	t-ə-bə́ddar	gift (after journey)
	i-ʒíbʒ-an	gift (name giving ceremony)
	í-gayd-an	luggage end in tent
	i-ʒínn-an	heaven

	plural	gloss
	i-ʒiləˀflaf	cloud (kind of)
	t-ə-kúf-an	foam
	nuun-én	vapor, smoke
c)	*ary-én*	water
	kud-én	blood
	haŋgar-én	urine
d)	*áznaɣ-an*	amniotic fluid
	árnan-an	(snake)venom
	i-máṭw-an	saliva
	i-máḍḍ-an	tears
	i-wínʒir-an	blood from nose
	i-ʃínʃar	nasal mucus

3.2.3.3.3   Double plurals

Two items are found that allow for a double plural.

The plural of *taɣmú* 'sandal, shoe' is interpreted as 'a pair of …' and several pairs can be marked by adding a second plural on the pluralized noun which is *taɣm-én-en* 'pairs of sandals'.

The item 'person' with the plural 'people' does not form a pair but people can be found in groups. The double plural is used to designate groups of people randomly scattered over an area. *borá* 'person/somebody' *bor-én* 'people' *bor-én-en* 'groups of people'.

3.2.4   Nominalization

3.2.4.1   Verbal nouns

There are different strategies to derive nouns from verbs. Songhay and Tamasheq cognates do not behave the same way.

3.2.4.1.1   Zero morphology: Songhay cognates

Songhay cognates have no morphological distinction between verbs and verbal nouns. When functioning as a verbal noun, these stems

can take a plural morpheme and take positions in the sentence where nouns occur. Examples:

(95)   *Songhay cognates with zero-derivation*

stem	verb	verbal noun	Songhay (KCH)
wâw	to insult	insult (n)	/wow/ 'to insult'
mún	to pour	pouring	/mun/ 'to pour'
dudú	to pour	pouring	/doori/ 'to pour' KS
kúḍ	to pasture animals	pasturing	/kur/ 'to herd animals'
horrá	to be bitter	bitterness	/hottu/ 'to be bitter'
gaŋgá	to prevent from	prevention	/gaŋga/ 'to prevent from'

There are a few roots of Tamasheq and other origins with the same behavior.

(96)   *Non-Songhay cognates with zero derivation*

stem	verb	verbal noun	Tamasheq
lúku	to be dirty (water)	dirtyness (water)	/ələk/ 'fill with tannin'
lə́ŋkəm	to sit behind s.b.	following (n)	/lănkăm/ 'to sit behind s.b.'
mánṇa	to be without grazing	red earth	/m̩ănnu/ 'to be deserted'
yilká	to disdain	disdain (n)	/alku/ 'to disdain'
fássar	to interpret (Koran)	interpretation	/făssăr/ 'to explain (text)' < Arabic
soħor	to eat during the night (Ramadan)	night meal	< Arabic
dabés	to increase	increase (n)	

bə́ləq	to be dusty	dustiness

In addition some verbs with a causative morpheme take zero morphology as nouns.

(97)   *Causatives with zero-derivation in the verbal noun*

stem	verb	verbal noun	Tamasheq
z-ə́zəl	to drive	driving (n)	/azəl/ 'to run'
ʃ-íḍən̩	to count	counting	/ʃiḍən/ 'to count'
s-ədwá	to make return	returning in afternoon	/adwu/ 'to return in afternoon'
s-ə́ṛəṣ	to humiliate	humiliation	/səṛəṣ/ 'to cause to go down'
ʃ-ídu	to assemble	assembling (n)	/ʃidəw/ 'to assemble'
s-əkná	to show	showing	/səkna/ 'to show'

All the examples above lack the nominalizer prefix that would normally be present with Tamasheq cognates.

3.2.4.1.2   *Verbal nouns of Tamasheq cognates*

Verbs of Tamasheq origin use different strategies for nominalization. The strategies described below concern mostly abstract nouns or verbal nouns that could be paraphrased with 'the doing of X' or 'the being of X quality' where X stands for the semantics of the verb.

Verbs with three or more syllables prefix an *a-* for nominalization and change the stress pattern. Nouns have the stress on the penultimate syllable whereas the verbs have the ante-penultimate syllable stressed. Under (a) transitive and under (b) intransitive verbs are given. A long consonant in the verb stem is not long in the noun.

(98)   a- *nominal prefix and stress shift*

	verb	noun	gloss
a)	*kaṭámkaṭam*	*a-kaṭamkáṭam*	to cut into pieces
	ʃí-ʃʃigəl	*a-ʃi-ʃíggəl*	to look for (animal)
	z-úmmumur	*a-z-umúmur*	to creep

	verb	noun	gloss
	z-ə́lləzləz	*a-z-əlázləz*	to shake (tree)
b)	*hə́ləklək*	*a-həláklək*	to pant
	hə́nəṣnəṣ	*a-həṇə́ṣnəṣ*	to whine (child)
	ẓə́bəḷbəḷ	*a-ẓəbə́ḷbəḷ*	to cry (camel)
	nə-gə́rtətəf	*a-nə-gərtə́təf*	to stumble

y-initial verbs with three following consonants lose the initial *yi-* syllable which is replaced by the nominal *a-* prefix and insert /a/ between all the consonants. The illustrations are under (a). y-initial verbs with two consonants take a long stressed *ee-* prefix and insert an /a/ between the two consonants. Examples are under (b) below.

(99)   *y-initial verb: CCC and CC*

	verb	noun	gloss
a)	*yídran*	*a-dáran*	to return quickly
	yíɣʃid	*a-ɣáʃad*	to be out of order
	yífṭəl	*a-fáṭal*	to bother s.b.
b)	*yíʃəf*	*ée-ʃaf*	to swim
	yíẓəḍ	*ée-ẓaḍ*	to crush into powder
	yínəz	*ée-naz*	to bend

/-ət/-final verbs take the nominal prefix /a-/ and drop the last syllable which is replaced by /u/. This last open syllable does not count for the stress distribution.

(100)   */-ət/-final verbs*

	verb	noun	gloss
	ʒ-ílliʒ-it	*a-ʒ-ílliʒ-u*	to clean (kind of)
	búbbug-ut	*a-búbbug-u*	to burn off (hair/feather)
	də́lənf-ət	*a-də́lənf-u*	to be gooey
	fə́lcəq-ət	*a-fə́lcəq-u*	to be flat

Another strategy for nominalization is presented below (3.2.4.3). The feminine prefix is the nominalizer in these cases.

3.2.4.2   Actor nominalization

Tadaksahak uses a prefix for actor nominalization. The default prefix is *ma-* with an allomorph *na-* for stems that contain a labial consonant (/b/, /f/ or /m/). In addition to the prefix many stems change the vowels into /a/ sounds.

Semantically the "actors" can be human, animate (animals) or an item that acts on humans.

Descriptive verb stems with the prefix designate beings with the characteristics of the verb. When action verbs are prefixed with this morpheme, the resulting expression designates a person that does the action or animate being that undergoes the action.

In the list below the first two items under (a) do not change the vowel of the verbal stem. (b) illustrates the change of the vowels to /a/ with the dropping of the final /-ət/. (c) gives an example with re-syllabification. (d) shows the pattern for yiCCvC stems. (e) illustrates yiCvC stems. Roots with only two consonants tend to have a long vowel in the stressed syllable. Finally (f) shows one of the few verbs of Tamasheq origin that have a long vowel.

(101)   Actor nominalization with /ma-/

	verb	noun	gloss verb	gloss noun
a)	*z-ə́rgəz*	*a-ma-zə́rgəz*	to court	man courting women
	hə́gəg	*a-ma-hə́gəg*	to go on pilgrimage	pilgrim
	zə́zaydər	*a-ma-zazáydar*	to be patient	patient person
b)	*gə́ṛḍ-əṭ*	*a-má-gaṛḍ-a*	to guard (house)	guard
	wə́l-ət	*a-má-wal-a*	to be gourmet	gourmet
c)	*zə́rəg*	*a-má-zrag*	to go to well	person going to well
d)	*yíɣdər*	*a-má-ɣdar*	to betray	traitor
	yíŋgəḍ	*a-má-ŋgaḍ*	to be turbaned	newly turbaned youth

	verb	noun	gloss verb	gloss noun
	yínṣi	*a-má-nṣay*	to beg	beggar
	yíldəd	*a-má-ldad*	to milk into mouth	milk thief
	yíxlək	*a-má-xlak*	to be created	Creator
e)	*yíḍəṇ*	*a-máa-ḍaṇ*	to graze	shepherd
	yaṇə́ṇ	*a-máa-ṇəṇ*	to be trained (camel)	trained camel
f)	*yazúurag*	*a-ma-záarug*	to be free (camel)	liberated camel

In one item one finds actor nominalization with a verb root of Songhay origin. The CVC root is reduplicated and then prefixes the regular actor morpheme: *záy* 'to steal', *a-ma-záyzay* 'thief'. Another possible cognate of Songhay uses the 'long vowel strategy' for actor building: *ḍaṛ* 'to hurt' (cf. KCH /door/ 'hurt') may be the stem from which *a-mée-ḍaṛ* is derived 'a hurting particle (in the eye)'. The /e/ directly after the /m/ is irregular, though, and not found elsewhere in our corpus.

There are several animals on the above list. One more is the general term *a-múu-dər* 'animal, living being' that is derived from *yidár* 'to live'.

In the list below are examples with the same surface features (syllable structure and y-initial) as discussed on the list above, that take the *na-* prefix. These stems all contain a labial consonant.

(102)   *Actor nominalization with* na-

	verb	noun	gloss verb	gloss noun
a)	*bǝ́lǝl*	*a-na-bálal*	to be at ease	who puts at ease
b)	*fíriʃ-it*	*a-na-fáraʃ-a*	to be crazy	crazy person
c)	*gimár*	*a-ná-gmar*	to hunt	hunter
	sǝ́-mməgəl	*a-na-s-mágal*	to treat (sickness)	healer
d)	*yibdán*	*a-ná-bdan*	to be paralyzed	paralyzed person

verb	noun	gloss verb	gloss noun
yíɣtəf	*a-ná-ɣtaf*	to ambush	street robber
yaxrám	*a-ná-xram*	to refuse	badly trained camel
yíktəb	*a-ná-ktib*	to write	writer
yíɣləf	*a-ná-ɣlif*	to be entrusted to	guardian
f) *máazal*	*a-na-máazal*	to be sent	messenger

Another minor actor strategy is found. It is not nominalizing a verb but prefixes to a noun that designates an item that is the distinguishing feature for the agent. The prefix *aw-* 'person' in singular and *kə́l* 'people' for plural is added to a noun. Examples are: 'merchant' *aw-maamála* (person-commerce) and 'cultivator' *áw-t-a-wágus-t* (person-F-SG-field-F.SG) with the plural *kə́l maamála* and *kə́l t-ə-wúgas* respectively. Semantically a strong indication of 'different social belonging' is conveyed. This strategy is also found in Tamasheq.

3.2.4.3   Nominalization with t-(a-)...-t

Many terms carrying the *t-a-…-t* marker are nouns derived from verbs. Depending on the meaning of the verb stem, the nouns may denote an entity with the characteristics of a descriptive verb, the instrument doing the verb, the result of doing the verb or an abstract noun.

Stative verbs describing qualities such as 'flat, smooth, round' can be changed into a noun which displays these qualities.

(103)   *Descriptive verbs*

verb	noun	gloss verb	gloss noun
fə́tiyləl	*t-a-fatáylal-t*	be flat	flat plate
búluləɣ	*t-a-bulúuleq-q*	to be round	round thing
ləfəɣət	*t-a-láfaɣat-t*	to pound s.th. soft	pounded meat
kə́rəmbu	*t-a-karámbaw-t*	to be bent	scorpion
qazór	*t-a-qázor-t*	to have a bent back	animal with bent back

verb	noun	gloss verb bent back	gloss noun back
ɣaʃáy	*t-á-ɣʃí-t*	to have stripes	striped animal
ʃamlál	*t-a-ʃímlal-t*	to be blond (kind of)	sand colored goat

A productive nominalization is found with colors. The result of the nominalization is the 'fact of being X'. The words listed under (a) have Tamasheq cognates. (b) is a Songhay cognate which takes both nominal forms with productive color nominalization and zero nominalization.

(104)   *Color names*

	verb	fact of being	gloss verb
a)	*ɣagál*	*t-a-ɣágal-t*	to be fair colored
	dabár	*t-a-dábar-t*	to be grey
	ʃamlál	*t-a-ʃámlal-t*	to be blond
	cawál	*t-a-cáwal-t*	to be clear
b)	*cíday*	*t-a-cíday-t ~ cíday*	to be red

The following nominalization patterns are not linked to specific semantics; it is rather the shape of the verb root that has some influence on the choice of the nominalization pattern. Abstract nouns as well as very concrete items can result from such nominalizations.

(105)   *Other nominalization patterns*

1) CV(:)CVC   >   ta-CV́:CVC-t

2) yVC₁C₂VC₃   >   ta-C₁V́:C₂VC₃-t

Verbs listed under (a) and (b) below illustrate pattern (1) above. (c) and (d) show examples for the second pattern (2). The consonantal output for all of them looks very much the same. The vowel part of the change is much less predictable than the consonants. A pattern of /a/-/ee/-/a/ is quite frequent but other long vowels occur like /oo/ (*tahóorat* 'suitability') or /uu/ (*tasúutəft* 'spit').

(106)   Nominalization

	verb	noun	gloss verb	gloss noun
a)	*bə́ləl*	*t-a-báalul-t*	to be at ease	young tree, sp.
	ṣə́ṛəf	*t-a-ṣóoṛef-ṭ*	to pardon	pardon
	sə́təf	*t-a-súutef-t*	to spit	spit
b)	*máazal*	*t-a-máazal-t*	to be sent	purpose
	rúurud	*t-a-ráarat-t*	to be in a hurry	hurrying
c)	*yífṛəṣ*	*t-a-féeṛaṣ-ṭ*	to cut with one stroke	piece of cut material
	yíɣləf	*t-a-ɣáalif-t ~ t-á-ɣlif-t*	to have confidence in	confidence
	yíɣṛəs	*t-a-ɣéerəs-t*	to chisel	well cut in rock
	yíḷfəẓ	*t-a-ḷéefaṣ-t*	to be crushed	blister
	yídkəl	*t-a-déekəl-t*	to lift up	hoof (part of)

In addition, all verbs of the rare shape yVhVC are nominalized with this strategy. They add an extra syllable in order to form a word with three syllables. *yáhag / t-a-háag-it* 'to last / duration' *yahór / t-a-hóor-at* 'to be suitable / suitability'. (see also *aa-hát / t-a-hát-at* 'Zarma person m/f'). The other verbs of the shape y-VCVC use a different strategy for nominalization, i.e. long initial vowel *yíʃəf / ée-ʃaf* 'to swim / swimming' (see 3.2.4.1.2).

3.2.4.3.1   Instrument

In a few verb stems, one finds a marker *sV-* which forms an instrument noun.

For these verb stems this marker produces the instrument with which the action of the verb is done. This procedure is not very productive. The examples under (a) show the verb root without the causative that are used as active verbs. (b) shows verbs only attested with the causative that can form the instrument.

(107)   Instruments

	verb	noun	gloss verb	gloss noun
a)	*yíɣrəs*	*t-a-sá-ɣris-t*	to chisel	chisel

	verb	noun	gloss verb	gloss noun
	yíɣfəl	*t-a-sə́-ɣfəl-t*	to lock	lock
	yískəl	*t-a-sə́-ksəl-t*	to shovel up	shovel
	yiwál	*t-a-sə́-wəl-t*	to be sharp (knife)	sharpener
b)	*ṣə́-ṣkəṛ*	*t-a-ṣə́-ṣkəṛ-t*	to put on its base	holder for milkbowl
	sə́-sməd	*t-a-sə́-smət-t*	to be pointed	s.th. pointed

Note the inversion of the /s/ with /k/ in the stem of the noun derived from *yískəl*. The verbal form with the causative prefix shows the same behavior *s-ə́ksəl*.

One stem was found that does not take the instrument morpheme but the feminine marker only and results in the instrument: *yísləf* > *t-á-sləf-t* 'to carve > carving ax'. The /s/ in the root is possibly interpreted as the instrument marker.

3.2.5 Compounding

Tadaksahak almost entirely lacks the possibility of noun-noun compounding. This is very different from the situation in Mainstream Songhay, such as Gao Songhay, and resembles the situation in Tamasheq.

The only noun-noun compounds with simple juxtaposition are found with the noun *koy* 'owner, master' and the two lexemes 'camel' and 'sheep'.

(108)   'owner' compounds

á-mṇəs - koy	*i-múṇas - kon*	camel owner(s)
SG-camel-owner	PL-camel-owner.PL	camel rider(s)
féeji - koy	*féeji - kon*	sheep owner
sheep-owner	sheep-owner.PL	

The two words can be used as expressions for 'rich people'. Note that the plural of 'camel owner' has both parts of the compound pluralized whereas the plural of 'sheep owner' only has the 'owner' part marked as plural. A possible explanation could be that, in the latter case, since both terms are Songhay cognates, the compound behaves like

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a Songhay noun phrase where only the phrase gets a plural marker, i.e. the last element. This corresponds to 'owner' in this example.

The same strategy is found in two clan names

(109)   Clan names
Abákot-kon   people belonging to the clan of
old.skin-owner.PL   Abakot

Ag-litáɣmu-kon   people belonging to the clan of
son.of-name-owner.PL Ag Litaɣmu

Both terms have irregular singulars without the 'owner' element present. They are *a-na-zbákot* (with the agent prefix and an irregular /z/) and *aw-lítaɣmu ~ ag-lítaɣmu* respectively.

A small number of compounds with simple juxtaposition occur that would seem to be noun-adjective/verb compounds. These frozen expressions designate kinship terms and animals. Similar expressions are found in Mainstream Songhay. In Tadaksahak, only one adjective is found in this kind of compound nouns, *beer-í* 'big', e.g.

(110)   Noun-adjective compounds
nana béer-i   grandmother (Lit: big mother)
mother be.big-ADJZR

baba béer-i   grandfather (Lit: big father)
father be.big-ADJZR

The other forms correspond to actual verbs.

(111)   Noun-verb compounds
naná ceená   maternal aunt (Lit: little mother)
mother be.small

naná fumbú   step-mother (Lit: rotten mother)
mother be.rotten

babá fumbú   step-father (Lit: rotten father)
father be.rotten

mó ceená   jackal (Lit: small eye)
eye be.small

míya kukú	mosquito (Lit: long beak)
mouth be.long	

All these expressions form their plural by adding a plural morpheme only to the last element of the term, e.g., *naná ceen-án* for 'maternal aunts'.

A small number of idioms use the genitive /n/ as link between the two terms. The stress pattern of these expressions is the same as in regular genitival constructions. All terms except 'ox' are Songhay cognates. They form the plural by adding a plural morpheme only to the last element of the expression, e.g., *gánda ɲ car-én* 'snakes' *hé ŋ kun-én* 'sicknesses'. To what extent these idiomatic expressions can be identified as real compounds is open to discussion.

(112)   *Genitive construction compounds*

hé ŋ kuná	sickness
thing GEN find.VN	(Lit: finding of a thing)

keení ŋ guná	dream
sleep GEN see.VN	(Lit: sleep's seeing)

ʒéemi nn áwdəʃ	praying mantis
blacksmith GEN ox	(Lit: ox of the blacksmith)

gánda ɲ caráy	snake, sp.
ground GEN friend	(Lit: friend of the ground)

gánda ŋ karfú	grass snake
ground GEN rope	(Lit: rope of the ground)

tárra nn ízzay	lion
bush GEN son	(Lit: son of the bush)

Some of these expressions are clearly euphemisms for animals that should not be called by their names.

A restricted number of nouns take a preposed element 'bad', which forms a kind of compound word.

The bound element precedes the noun it goes with. Its stress pattern depends on the stress of the following noun. When the noun has stress on the penultimate syllable, *agar* remains unstressed. When it has final stress, the element *agar* is stressed on its second syllable.

agar 'bad' doubtlessly has a Berber background, even though it does not seem to exist in Tuareg. The morphosyntactic behavior of Tadaksahak *agar* is remarkably similar to that of /erk/ 'bad' in Tamasheq.

(113)   *Nouns found with* agar

agár borá	bad person
agár farká	bad donkey
agar léelaw	slander
agar a-hándag	difficult/dangerous place
agar káykay	morally bad behavior
agar íi-m-an	dizzy spell

agar 'bad' does not agree in number or gender with the noun it modifies. This is shown by the last example, *agar íi-m-an* which contains the plural noun *íi-m-an* 'life, soul', and by forms such as *agar t-ə́-mgad-an* 'bad girls' with the feminine plural noun *t-ə́-mgad-an* 'girls'.

It should be noted that the regular expression for 'bad' is by means of the adjective *yibrár+an* 'be bad+ADJZR' and the place in the noun phrase is after the noun.

(114)   *wá   (ə)n꞊sə-d(a)   aɣáy he   yibráar-an*
          IMP   2s꞊IMPERF.NEG-do   1s.IO thing be.bad-ADJZR
          don't do me any harm!

3.2.6 Personal pronouns

In the section about the verbal word it was shown that subjects are always referred to in a clitic which appears before the verb stem.

Besides the subject clitics there is a series of pronouns that behave differently from the clitics and behave more like noun phrases from a syntactic point of view. They cannot be possessed but they may be followed by a certain demonstrative construction, by discourse-functional morphemes, and/or by a postposition.

3.2.6.1 Person and number categories

The speaker (1s), the addressee (2s) and the non-participant (3s) form the paradigm in the singular. There is no gender distinction. The

3s pronoun stands for female and male, animate and inanimate referents alike.

The plural has the same three categories 1p, 2p and 3p. There is no distinction between inclusive or exclusive in the first person plural.

3.2.6.2   Forms

The list below gives the different shapes of pronouns in their functions.

What I call 'independent subject' is a pronoun pre-posed to the verbal word which occurs without a focalization morpheme. In this position it is labeled 1s.EMP ('emphatic') in order to show its status outside the inflected verbal word, e.g. *aɣáy aɣa=ggun(a)=á.* (1s.EMP 1s=see=3s) 'I, I saw him.'

The dependent object pronoun form has a clitic in the 3ʳᵈ person that attaches either to the verb (see 3.1.4.3) or to the postposition (see below 3.2.6.3).

The independent object form shows a difference in the 3ʳᵈ person where a longer form is found that stands independently and has the same properties as the other pronouns, i.e. it may take modifiers. These pronouns will be glossed with EMP 'emphatic'.

(115)   *Shapes of personal pronouns*

	dependent subject	independent subject	dependent object	independent object
1s	*aɣ(a)=*	*aɣáy*	*aɣáy*	*aɣáy*
2s	*ni=/ən=*	*nín*	*nín*	*nín*
3s	*a=*	*áŋga*	*=a*	*áŋga*
1p	*ar(ə)=*	*áari*	*áari*	*áari*
2p	*andə=*	*ándi*	*ándi*	*ándi*
3p	*i=*	*íŋgi*	*=i*	*íŋgi*

3.2.6.3   Pronouns as postpositional complements

The pronouns listed in the preceding table may be combined with all postpositions (for *n* 'genitive' and *wani / wan-en* 'of', see below) and the preposition *ənda* 'with, and'.

The dependent 3rd person pronouns cliticize to following postpositions. The clitic normally carries the stress which results in a V́:CV word where the initial open syllable is lengthened, e.g. *íí=se* (3p=DAT) 'for them'.

When several pronominalized complements follow each other in a clause, they are separated from each other by a specialized morpheme that is described as the 'pronoun separator' below 3.2.7.11.2.

3.2.6.4   Possessive pronouns

In Mainstream Songhay the regular pronouns also serve as possessors (Heath 1999b:80). This is not the case in Tadaksahak where possessors are marked by means of the subject clitic series together with the genitive morpheme.

In the list below the subject clitics are given in the first row to show the similarity in shape with the possessive pronouns, which are given in the second row. The third row shows that the possessor form ('mine', 'yours') uses the same series of dependent pronouns together with the particle *wani / wan-en*. Note that the same phonological rules are in force as for the clitics preceding an inflected verb, i.e. the first persons use the mono- or disyllabic allomorph depending on the shape of the following element. The 3s clitic has an allomorph *ay=* (pronunciation [ɛj]) when joined with the markers for possession, i.e. *ay=n* 'his/her/its' and *ay=wani* 'his/hers'

(116)   *Possessive pronouns*

	subject clitic	possessive pronoun 1	possessive pronoun 2
1s	*aɣa=/aɣ=*	*aɣá=n*	*aɣ=wáni*
2s	*ni=*	*ní=n*	*ni=wáni*
3s	*a=*	*áy=n*	*ay=wáni*
1p	*arə=/ar=*	*árə=n*	*ar=wáni*
2p	*andə=*	*ándə=n*	*andə=wáni*
3p	*i=*	*í=n*	*i=wáni*

The 1st person pronouns of the series 1 have an alternative form when the following noun has an initial vowel. In such cases the

second vowel in the pronoun is dropped, e.g. *aɣ=n aɣáanib* 'my pencil' or *ar=n iḍúuḷin* 'our in-laws' (see more examples under 2.4.2.4).

3.2.7 Adpositions

Tadaksahak has several postpositions and a few prepositions. The list below presents the translation equivalents and a general indication of the function.

(117) *Adpositions*

form	gloss	function
se	for	dative
ka	in, on, to, from	locative
be	on, over	locative
daw	at ('chez')	locative
kámba	towards	locative
n	of	possessive
wáni / wán-en	of	character of
ənda	and, with, towards; if	instrumental; comitative; locative; conjoining NPs; conditional
wala	without; or	lack of item; disjunction
ínʒin	like	comparison

For some of these postpositions we can suggest origins:

se: same as in Mainstream Songhay.

ka: The equivalent in Songhay is /ra~la/ and does not help for an origin. But KS has a noun /kuna/ 'interior'. This word is still being used as a locative postposition in KCH (Heath 1999a:354) and in Tasawaq, another Northern Songhay language, e.g. /húgù kúná/ 'in the house' (Kossmann p.c.).

be: has a nominal relative in *béena* 'top' that can be used to express 'on something' as in *húgu n béena* 'top of the house'

daw: Songhay of Gao has /doo/ 'place' (and a postposition with the same shape) which could be at its origin. A frequent use of the postposition is 'at X's place' (French 'chez'). It can also mean 'close to', 'next to' a present physical entity (person, family, house). Tamasheq has a preposition /daw/ 'under' that is closer in shape but semantically points in a different direction and seems therefore unlikely to be the origin.

kámba: also means 'hand, arm' and so indicates a direction which is the meaning of the postposition.

n: genitive marker with the same form as in Tamasheq but syntactically used in a different way.

wani: is a possessive postposition in Mainstream Songhay. In Tadaksahak the use is somewhat different since it occurs for marked possessor relationships and characteristics.

ənda: is found in Mainstream Songhay where it serves for most of the functions observed in Tadaksahak. An additional feature is its locative use with motion verbs.

wala: this preposition is originally from Arabic but is also used in Tamasheq and Songhay.

ínʒin: a cognate in Tamasheq is /zun ~ zund/ used the same way.

3.2.7.1 Dative se

This postposition is used for indirect objects, i.e. the addressee with verbs like *ci* 'say' and *har* 'tell (sth.)', and the beneficiary with verbs like *na* 'give' and *ʃ-úuwa* 'send'.

(118)   a=nn(á)   áy=n   t-ə-sə́ssira [alfáqi   se].
3s=give   3s=GEN   F-PL-key   teacher   DAT
she gave its (trunk) keys to the teacher.

With pronouns, the dative postposition may be absent (see 3.2.7.11.2.1) It is obligatory with third person pronouns.

(119)   *a=nn(a)*   *íi=se*   *t-ée-laq-q*
        3s=give   3p=DAT   F-SG-knife-F.SG
        s/he gave them a knife.

Certain causative verbs mark the causee with the dative.

(120)   *a=ssə́-ss-əŋɣəl-an*   [*táwway*   *se*]
        3s=CAUS-CAUS-pour.BND-ALL   servant   DAT

        báarar   *ən*   *ʒíibi.*
        child   GEN   dirt
        she made the servant remove the child's dirt.

The postposition is pronounced [sa] when followed by an another pronoun beginning with /a/. For a discussion about *n* 'pronoun separator' and further examples, see 3.2.7.11.2.

(121)   *a=nn(á)*   [*aɣáy sa*]   *n*   *a*
        3s=give   3s   DAT   SEP   3s
        s/he gave it to me.

Second person singular is irregular: Instead of expected **ni=se* , it appears as *ana* 2s.DAT. The form may be related to the irregular form used in Mainstream Songhay where 2s.DAT is /mane ~ manaː/. In Tadaksahak most pronouns begin with a vowel and so possibly the initial consonant was dropped.

(122)   *aɣa=hár*   *ana*   *ay=n*   *ə́mmək.*
        1s=tell   2s.DAT   3s=GEN   manner
        I told you how s/he/it is.

This pronoun behaves quite differently from the rest of the series. Further treatment of this topic is found in 3.2.7.11.2.1.1.

3.2.7.2   *Locative and temporal* ka

The basic reading of this locative postposition *ka* LOC is 'in'. It is a purely topological postposition, insensitive to questions of location vs. direction. That is to say, it can be translated both as locative 'in, at, on' and as directional 'into, from', etc. (cf. also Heath 1999b:136).

(123) a)   *a=b-gorá*   [*húgu ka*]
           3s=IMPERF-sit   tent   LOC
           S/he sits in the tent.

b) *a=b-gor(á)*   *[[a-jeráw   ən   a-ss-ə́ləm]   ka]...*
3s=IMPERF-sit   SG-river   GEN   SG-INST-outside   LOC
She (fish woman) was sitting at the riverside...

c) *a=f-keení*   *[gánda   ka]*
3s=IMPERF-lay   ground   LOC
It is laying on the ground.

d) *[aɣá=n   baaʃí]   a=yyéd   [baŋgu   ká].*
1s=GEN   water.bag   3s=return   well   LOC
My water bag fell in the well.

e) *a=b-nín*   *[t-ée-ɣar-t   ka]*
3s=IMPERF-drink   F-SG-pot-F.SG   LOC
S/he drinks from/in the pot.

f) *[[man né]   k(a)] aɣa=ttáŋga-kat=i?*
where place   LOC   1s=push-VEN=3p
From where did I push them (camels) to here?

The examples below have a temporal as well as a locational incidence of *ka*.

(124) a) *[zaɣri   aɣo   ka]   ni=ssə́-bdəd=i*
day   DET   LOC   2s=CAUS-stop.BND=3p
[[aɣá=n   mo]   ka]...
1s=GEN   eye   LOC
(on) the day you place them in front of me...

b) *[áŋga   ka]   ni=b-mún   [a=k(a)]   ary-én...*
3s.EMP   LOC   2s=IMPERF-pour   3s=LOC   water-PL
then you pour water in it...

In this last example *áŋga* 3s.EMP refers to the whole preceding clause which is of temporal nature: 'The moment when you finish with the meal in the plate'.

3.2.7.3   Locative *be* 'on'

The postposition *be* means basically 'on' but also 'above' and in a more abstract way 'about'. Similar to *ka*, it can be used both in locative and in directional contexts. Expressions like 'to descend down on', 'jump down on', 'be on' use this postposition.

(125) a) *a=hóoɣay*   *[áa=be].*
3s=spend.day   3s=on
he spent the day there (at the well).

b) *aɣa꞊kkáw*   *[a꞊b(e)]*   *[ay꞊n*   *í-sǝlsa].*
1s꞊take.away   3s꞊on   3s꞊GEN   PL-clothes
I took his clothes off him. (= from on him)

c) *ni꞊b-guná*   *hó*   *f-túw-ǝṇṇ(a)*
2s꞊IMPERF-see   thing.DET   IMPERF-PASS-say.BND
[i-dáksahak   *be]?*
PL-ethnic.name   on
do you see what is said about the Idaksahak?

This postposition can also be used in a causal sense 'because of, on account of' (see 4.8.2.2).

3.2.7.4   *Locative* daw *'at somebody's place' (chez)*

The postposition *daw* can frequently be rendered by the French word 'chez' i.e., 'at somebody's place' but 'being physically close to' or 'next to' can also be possible. The location is mostly a person or a place where people normally are, e.g. a house.

(126) a) *a꞊ttén*   *[aɣáy daw]*
3s꞊arrive   1s   chez
he arrived at my (place).

b) *a꞊f-káy*   *[[áy꞊n*   *nana]*   *daw]*
3s꞊IMPERF-stand   3s꞊GEN   mother   chez
it (child) stands next to his/her mother.

3.2.7.5   *Directional* kámba *'towards'*

Another postposition rarely used is directional *kámba* 'towards'. Example:

(127) *kéed(i)*   *[a-gíilal*   *kámba]*
mount   SG-rear   towards
get up towards behind!

See also 3.2.7.8 for a similar meaning of *ǝnda* 'towards'.

3.2.7.6   *Genitive* n

Tadaksahak has a possessor – possessed order. The genitive postposition *n* provides the link between the two nouns. A similar marker is found in Tamasheq, but Tadaksahak has the reverse order of constituents.

(128)   [*Mússa   n]*   *húgu*
    name GEN house
    Mussa's house

The form can take an epenthetic schwa when the preceding noun ends with a consonant.

(129)   [*báarar   ən]*   *hánʃi*
    child GEN dog
    (the) child's dog

A similar structure is used with pronouns (see 3.2.6.4).

The morpheme assimilates to the place of articulation of a following consonant. The illustrations are in the phonology part (2.4.1.1).

An interesting observation is the fact that speakers usually repeat the genitive particle together with the possessed item when they retake this construction partially, e.g. *Mussa …… ən húgu* 'Mussa, eeem….(hi)s house'.

3.2.7.7   Possessive wáni / wán-en 'of'

This element, which is the only overt possession marker in Mainstream Songhay, is not very frequent in Tadaksahak. It only rarely marks a true possessive relationship. A more regular use of this form is to express 'character of' or 'of material of'.

The head precedes the modifier and the particle follows the modifier.

(130)   *t-a-mə́nkə-t*   [*háamu   wáni]*
    F-SG-piece-F.SG meat   of
    piece of meat

This particle agrees in number with the head.

(131)   *í-səlsa   [úuraɣ wán-en]*
    PL-clothe gold of-PL
    clothes (made) of gold

Only in conjunction with a pronominal clitic does this particle express 'ownership' as in 'mine' or 'yours', (3.2.6.4) but there is also a use where the whole construction modifying a noun means '(my) kind of' including the notion of 'character'.

3.2.7.8   Preposition ənda 'with', 'in the direction of'

This element has many different functions. Its syntax together with pronouns merits special attention (3.2.7.11.2.2). Phrases with *ənda* + noun have instrumental or comitative meaning. With transitive verbs the instrumental reading is normal ('he hit it with a hammer.'), with a certain class of (intransitive) verbs the comitative meaning is normal ('he accompanied him'). See more examples in 4.3.6.

(132) a)   *a꞊bb-ə́ʃɣəl*   [*ənda*   *ṭ-á-ṣṣəḍ*]
           3s꞊IMPERF-work   with   F-SG-ax
           he works with an ax.

      b)   *a꞊b-háŋg(a)*   [*ənd(a)*   [*áy꞊n*   *caráy*]]
           3s꞊IMPERF-accompany   with   3s꞊GEN   friend
           he accompanies his friend.

One particular use of *ənda* 'and, with' is as a locational expression. Some movement verbs take this preposition to indicate 'close by', 'in the direction of'.

(133)   *a꞊zzúru*   [*ənda*   *húgu*]   *fo...*
           3p꞊run   with   house   IND
           he (snake) run close by a house...

The list below gives more verbs that use *ənda* 'in the direction of' to encode a location. The first verb on the list below does not occur without the preposition.

(134)   Verbs with *ənda* 'in the direction of'

verb	gloss	syntax	gloss
		yáray ənda X	be in the direction of
bóy	move camp	*bóy ənda X*	move in the direction of
yíci	pass	*yíci ənda X*	pass in the direction of
yídu	be assembled	*yídu ənda X*	be assembled in the direction of

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3.2.7.9   Preposition wala *'without'*

wala has many functions in the language (4.8.1.2 'or'; 4.6.4 'not even'). When meaning 'without', it precedes the noun that is negated. The second example below has *wala* in both functions, 'without' and 'or'.

(135) a)   *əs-kahar   aɣa=b-d(á)   á-ḍrəs   wala   haamú...*
            maybe-when 1s=IMPERF-make   SG-sauce without meat
            when I make a sauce without meat...

     b)   *bora   jíji-kat   ay=n   á-mṇəs   wala*
           person   load-VEN   3s=GEN   SG-camel   without
           t-a-xáawi-t   wal(a)   i-sə́tfar...
           F-SG-saddle.kind-F.SG   or   PL-cover
           somebody who loads his camel without saddle or
           (without) padding...

There is an idiomatic use of the construction 'without + child/one' to include absolutely all (persons). In the following example also the word *káamil* 'all' is intensified to express 'all included'.

(136) a)   *i=yyídu-kat   kamululáhi wala   báarar*
            3=assemble-VEN   absolutly.all without   child
            they were absolutely all assembled.

     b)   *a=gór   i-mənóokal-an   i=f-túwa-s-úku*
           3s=must   PL-ruler-PL   3p=IMPERF-PASS-CAUS-call.BND
           wal(a)   á-ffo.
           without   SG-one
           all the chiefs without exception had to be summoned.

     c)   *s(a) i=ggár=i   i=kkós   wal(a)=á.*
           COMP 3p=find=3p   3p=cut   without=3s
           it was found that they were cut without (exception).

The last example has no noun following *wala*. The meaning is nevertheless the same as the other examples show. The stress on the final syllable of *walá* suggests that some morpheme is added there, probably a 3s clitic.

3.2.7.10   Preposition inʒín *'like'*

inʒín behaves like a preposition at times but can also join sentences. Find more examples and discussion under (4.7.4.6).

(137)   *inʒín t-a-zooníya-t*   *ən*   *ci?*
          like   F-SG-bird.sp-F.SG   GEN   kind
          Like a kind of small bird?

3.2.7.11   Pronominalized elements and the verb

3.2.7.11.1   Pronominalized NPs

Subject pronouns precede the verb. Other pronominal elements follow the verb (unless in focus). There are rules for the succession of pronouns after the verb and the presence of the dative postposition.

1) When other pronominalized elements are present, the pronominalized direct object is the last element (as illustrated in (138) below)

2) Most pronouns indicating the indirect (dative) object are marked by the dative postposition *se*. With first person pronouns it is absent when the pronoun is not followed by another pronoun, but present otherwise (see 3.2.7.11.2.1 below)

3) When a locative and a dative pronoun are present, the dative precedes the locative pronoun

3.2.7.11.2   Pronoun separator n

Tadaksahak uses a particle *n* to separate pronouns from each other in the post-verbal position. The insertion of this consonant allows for the pronunciation of vowels that would normally be deleted because of regular vowel coalescence rules.

In Tadaksahak there is no evidence that this particle is more than the consonant /n/. In Songhay of Gao there is a particle /na/ 'transitive' that marks direct objects with verbs that use preverbal pronouns (Heath 1999b:212).

The use of the pronoun separator *n* is illustrated below in (c); The sentence (b) only has one pronominal element; sentence (a) presents the full sentence without pronominalization.

(138) a)   *a=kkuná*   *ceedí*   *húgu*   *ka.*
            3s=find   spoon   house   LOC
            s/he found a spoon in the house.

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    b)   *a꞊kkun(á)꞊a*   *húgu*   *ka.*
          3s꞊find꞊3s   house   LOC
          s/he found it in the house.

    c)   *a꞊kkun(á)*   *áa꞊ka*   *n*   *a*
          3s꞊find   3s꞊LOC   SEP   3s
          s/he found it in it.

The pronoun separator does not only separate direct object pronouns from other pronouns, it also separates postpositional pronouns from each other. The following clause illustrates this.

(139)   *a꞊kkáw*   *aɣáy sa*   *n*   *áa꞊ka*   *ṭónd-en.*
        3s꞊take   1s DAT SEP 3s꞊LOC   pebble-PL
        She took pebbles out of it (rice) for me.

The following example has the maximal amount of pronouns possible in one single clause.

(140)   *Koy ni꞊m-d(á)*   *áa꞊se*   *n*   *áa꞊ka*   *n*   *a!*
        leave 2s꞊SUBJ-do 3s꞊DAT SEP 3s꞊LOC SEP 3s
        Go put it in it for him.

ənda 'with' can be preceded by the pronoun separator.

(141)   *Lém-kat*   *aɣáy sa*   *n*   *á꞊(ə)nd(a)* *i-ʃígn-an*
        twine-VEN 1s DAT SEP 3s꞊with   PL-thread-PL
        Twine me thread with it (earth).

Read more about *ənda* and its behaviour with pronouns under 3.2.7.11.2.2.

3.2.7.11.2.1   *Pronouns with dative* se

Most pronouns indicating the indirect (dative) object are marked by the dative postposition *se*. With first person pronouns it is absent when the pronoun is not followed by another pronoun. When another pronominal is present, *aɣáy* '1s' and *áari* '1p', used as indirect objects, are obligatorily followed by the postposition *se* DAT. Consider the examples:

(142) a)   *a꞊nn(a)*   *aɣáy t-ée-laq-q*
         3s꞊give   1s F-SG-knife-F.SG
         s/he gave me a knife.

b)   *a=nn(a)*   *aɣáy sa*   *n*   *a*
     3s=give   1s   DAT   SEP   3s
     s/he gave it to me.

c)   *a=yyíddər*   *áari*   *báarar*
     3s=hold   1p   child
     s/he held the child for us.

d)   *a=yyíddər*   *áari*   *sa*   *n*   *a.*
     3s=hold   1p   DAT   SEP   3s
     s/he held it for us.

The third person pronouns and 2p *andi* are always followed by the postposition. For the 2s pronoun see below.

(143) a)   *aɣa=dd(á)*   *ándi*   *s(e)*   *a-sáafu...*
           1s=do   2p   DAT   SG-greeting
           I greeted you(pl)...

b)   *aɣa=dd(á)*   *áa=s(e)*   *a-sáafu...*
     1s=do   3s=DAT   SG-greeting
     I greeted him/her...

c)   *aɣa=dd(á)*   *íi=s(e)*   *a-sáafu...*
     1s=do   3p=DAT   SG-greeting
     I greeted them...

3.2.7.11.2.1.1   Second person with se *DAT*

The second person singular dative pronoun appears as *ana* 'for you (sg)'.

(144) a)   *aɣa=nn(á)*   *ana*   *t-ée-laq-q*
           1sgive   2s.DAT   F.SG-knife-F.SG
           I gave you a knife.

b)   *a=tə-yilkám*   *ana*
     3s=FUT-follow   2s.DAT
     He will follow you.

The syntax of this pronoun is not regular, as it has a different position in the clause from the other DAT pronouns, following the direct object pronoun rather than preceding it, e.g.

(145)   *aɣ=tə-taŋ(á)=í*   *(a)na*
        1s=FUT-push.ahead=3p   2s.DAT
        I will push them ahead for you.

When occurring with a pronominalized locative phrase, *ana* 2s.DAT comes between the pronoun and the locative postposition. The following examples come from a dialog at the market.

(146) a)   *aɣa꞊ṣṣúr   íi꞊(a)na-be   ṭ-ə-méedi.*
          1s꞊put.on   3p꞊2s.DAT-LOC   F-SG-hundred
          I add you 500 Francs[1] CFA on them.

b)   *aɣa꞊b-n(á)   íi꞊(a)na-ka   i-jím-an   hiŋká.*
     1s꞊IMPERF-give   3p꞊2s.DAT-LOC   PL-thousand-PL   two
     I give you 10.000 Francs CFA for them.

In combination with the first person pronoun there is yet a different strategy used. The regular 2s pronoun *nín* appears together with the DAT marker. The direct object follows the verb immediately, as in the examples above with *ana*.

(147) a)   *a꞊nná   nín   aɣáy   se*
          3s꞊give   2s   1s   DAT
          He gave you to me.

b)   *a꞊nn(a)   aɣáy   nín   se*
     3s꞊give   1s   2s   DAT
     He gave me to you.

3.2.7.11.2.2   Pronouns with instrumental-comitative ənda

The preposition *ənda* 'with' does not behave as expected in all environments. When the PP with *ənda* is the only pronominalized element, *ənda* is preposed to the pronoun, e.g.

(148) a)   *a꞊bb-áʃɣəl   [ənda ṭáṣṣəḍ].*
          3s꞊IMPERF-work   with ax
          He works with an ax.

b)   *a꞊bb-ə́ʃɣəl   [ənd(a)꞊á].*
     3s꞊IMPERF-work   with꞊3s
     He works with it.

---

[1] The monetary system is based on 'one coin' that is worth 5 Francs CFA. All numbers need therefore to be multiplied by 5 to indicate their monetary value, e.g., 100 units of 5 Francs CFA equal 500 Francs CFA.

When the instrument is pronominalized in sentences that also contain a direct object, *ənda* is postposed to its pronominal complement and now functions as a postposition.

(149) a) a꞊b-hímay   áɣ꞊n   baŋgú [(ə)nda   ary-én].
         3s꞊IMPERF-wash   3s꞊GEN   head   with water-PL
         She washes her head with water.

      b) a꞊b-hímay   [í꞊(ə)nda] baŋgú.
         3s꞊IMPERF-wash   3p꞊with   head
         She washes the head with it.

      c) aɣ꞊tə-ṣún   [nín ənd(a)]   [aɣa꞊n   t-a-báɣor-t]
         1s꞊FUT-share 2s   with   1s꞊GEN   F-SG-wealth-F.SG
         I will share my wealth with you.

The same behavior is found when *ənda* is used as a comitative.

(150)   a꞊b-déeraw   í꞊(ə)nda   baabá.
         3s꞊IMPERF-have.in.common   3p꞊with   father
         He has the same father as they have.

3.2.7.11.2.3   Pronouns with locative PPs

The locative postpositions *ka* 'in, from, among, to, at', *be* 'on' and *daw* 'at (somebody's place)' are always present when the accompanying noun is pronominalized. Find a selection in the examples below.

(151) a) a꞊ʃʃúggu   aɣáy ka
         3s꞊look.down   1s   LOC
         She looked down on me.

      b) ...aɣo ʃí   nín   ka
          DET   not.be   2s   LOC
         ...that you have lost.

      c) t-á-ŋgud   a꞊f-təmə́ɣ-təməɣ   áa꞊ka
         F-SG-girl   3s꞊IMPERF-blink-DUP   3s꞊LOC
         The girl blinked at him.

      d) i꞊ṣṣ-ə́ŋkər   áari be   t-áa-zice
         3p꞊CAUS-get.up.BND   1p   LOC F-SG-storm
         They raised a storm on us.

      e) aɣa꞊ttén   ándi daw
         1s꞊arrive   2p   LOC
         I arrived at your(pl) place.

    f)   *a-múnsu*   *aɣo*   *n*   *cijín*   *a꞊qqóq-an* *íi꞊be*
            SG-meal   DET   GEN last.night   3s꞊be.dry-ALL 1p꞊LOC
            The meal of the previous night has dried on it.

3.2.8 Adjectives

Tadaksahak has a category of adjectives which are different from verbs and nouns on the basis of their morphological properties. All adjectives have a corresponding verb, and the great majority of adjectives is morphologically derived from the verb stem. There are three different strategies to form adjectives depending on shape and etymology.

The first strategy concerns verbs of Songhay stock. A very different morphology is used with verbs of Tamasheq origin. A third strategy allows Songhay cognates to be inserted into the morphological pattern otherwise used in deriving adjectives from Tamasheq verbs.

3.2.8.1 'Songhay' derivation: -i/-u and zero-derivation

Some monosyllabic Songhay-based verbs form the corresponding adjective by adding a stressed high vowel. A low /a/ vowel in the stem seems to attract the *-u* suffix and a mid vowel the *-i* suffix. This marker is different from the ones found in Songhay of Timbuktu and Songhay of Gao, which add /o/ and /a/ respectively.

Since the suffix is a single vowel, a long vowel in the stem reappears. The examples below illustrate high frequency adjectives with suffix *-i* under (a) and suffix *-u* under (b)

(152)   *Songhay derivation*

		verb	gloss	adjective
a)		*ʒen*	to be old	*ʒeen-í*
		ber	to be big	*beer-í*
		qoq	to be dry	*qooɣ-í*
b)		*n̩as*	to be fat	*n̩aas-ú*
		baq	to be broken	*baaq-ú*

Three Songhay cognates use no segmental derivational morpheme to serve as noun modifier, viz. the basic color terms 'white', 'black' and 'red/brown'.

(153)   *No morpheme*

verb	gloss	adjective
bíibi	to be black	*bíibi*
kóoray	to be white	*kóoray*
cidáy	to be red	*cidáy*

3.2.8.2   *Tamasheq cognates: derivation with /-an/*

Di-syllabic stative verbs of Tamasheq origin take a suffix *-an* ADJZR to mark a modifier in a noun phrase.

In Tamasheq the masculine singular form of the (stative) "participle"-suffix is /-ăn/. In a clause like 'black man' the verbal stem 'to be black' is inflected with this participial suffix, e.g. /ă-hálǝs kǎwǎl-ǎn/ (SG-man be.black-/ǎn/) 'black man' (cf. Heath 2006:483). This suggests that the suffix has come into the language together with its use on Tamasheq cognates.

The table below illustrates verbs taking the *-an* suffix. They are all Tamasheq cognates. When the vowel-initial suffix opens a syllable with a stressed vowel, this vowel is realized long in the adjectivized form. Under (b) the adjectival forms are listed with the realizations of this feature. (c) illustrates a V-final root that loses this vowel. The stress of the last syllable is carried over to the suffix. (d) illustrates the way the stem amalgamates with the suffix and is realized [ɛn]. Finally (e) gives the only example where the final *-ay* syllable is not amalgamated but opens up and exposes a long final /a/.

(154)   *Tamasheq cognates*

	verb	gloss	adjective
a)	*dalát*	to be blue/green	*dálat-an*
	kádak	to be brown (kind of)	*kádak-an*
	yaráɣ	to be yellow	*yáraɣ-an*
b)	*yibrár*	to be bad	*yibráar-an*
	yimád	to be complete	*yimáad-an*
	yizzár	to be ahead	*yizzáar-an*
	dagág	to be slow	*dagáag-an*

	verb	gloss	adjective
	zadíg	to be clean	*zadíig-an*
c)	*yisħá*	to be strong	*yisħ-án*
d)	*daráy*	to be brown (kind of)	*dár-en*
	kaẓáy	to be white (kind of)	*káẓ-en*
	zə́ray	to pass after	*zə́r-en*
e)	*yaynáy*	to be new	*yaynáay-an*

Four disyllabic Songhay cognates in our corpus also take this suffix as the only possible derivational suffix.

(155)   *Disyllabic Songhay cognates with* -an

	verb	gloss	adjective
	kukú	to be long	*kuk-án*
	ceená	to be small/young/few	*ceen-án*
	babó	to be numerous	*babó-(a)n*
	ʒíibit	to be dirty	*ʒíibit-an*

3.2.8.3   Reduplication + -an

The great majority of monosyllabic verb roots of Songhay origin use a reduplication strategy. The verb root is duplicated and the morpheme *-an* is suffixed.

The reduplication sometimes entails phonological changes, such as /n/-assimilation. A special instance is /r/-assimilation, which only occurs with the adjectival derivation.

In the list below are adjectives that occur exclusively with this strategy. (a) illustrates the regular case of CVC shaped stems reduplicated with the phonological rules of assimilation. (b) shows CV pattern reduplication following the respective rules for final Vs: /a/ is dropped and /y/ is inserted after /i/.

(156)   *Reduplication + /-an/*

	verb	gloss	reduplication
a)	*ban*	to be soft	*bam-ban-án*

verb	gloss	reduplication
bun	to be dead	*bum-bun-án*
dut	to be pounded	*dut-tut-án*
fay	to be separated	*fay-fay-án*
fik	to be buried	*fik-fik-án*
kan	to be sweet	*kaŋ-kan-án*
kos	to be cut	*kos-kos-án*
ṭay	to be wet	*ṭay-ṭay-án*
waṣ	to be boiling	*waṣ-waṣ-án*
boy	to move camp	*boy-boy-án*
hay	to give birth	*hay-hay-án*
b) *wa*	to be healed	*wa-w(a)-án*
ʃi	to be lost	*ʃi-ʃʃi-án*

3.2.8.4   *Irregular adjectives*

Quite a number of frequently used adjectives appear in several forms. They are all Songhay cognates. It should be noted that this variation is found in real language use, and not due to the medium of elicitation. The forms listed without brackets below have been extracted from our text corpus, those in brackets have only been attested in elicitation.

Some reduplicated roots can take the *-i* suffix and not only the expected *-an*.

Roots under (a) have two or three forms. The examples (b) to (e) show forms which are irregular for one or another reason (b) has assimilation of the final /r/ of the first syllable to the /m/ of the second and adds *-i* despite reduplication. Elicitation also provided the expected *-an* ending; (c) shows partial reduplication but both stems do not take the same suffix. 'hot' takes *-i* and 'bitter' takes the *-an* suffix, elicitation also provided the other possibility. 'fall' under (d) does not duplicate yet takes *-an*. (e) 'good' reduplicates only partially.

(157)   *Songhay cognates with irregular derivation*

	verb	gloss	simple root	redup. root
a)	*ber*	to be big	*beer-í*	*bə-béer-i*
				bəb-bər-án
	qoq	to be dry	*qooɣ-í*	*qoq-qoɣ-án*
			qoq-án	
	ʒen	to be old	*ʒeen-í*	*ʒen-ʒen-án*
	ṇas	to be fat	*ṇaas-ú*	*ṇas-ṇas-án*
b)	*mor*	to be distant		*mom-mor-í ~*
				(mom-mor-án)
c)	*korrá*	to be hot		*kor-korr-í ~*
				(kor-korr-án)
	horrá	to be bitter		*(hor-horr-í) ~*
				hor-horr-án
d)	*kaŋ*	to fall	*káŋg-an*	
e)	*gíman*	to be good		*giŋ-gimán*

It seems that the two very different strategies for adjective formation found in Tadaksahak are on the way to merging into one form that is used with all verbal roots. This merged form would be based on two or more syllables (possibly reached by reduplication), followed by the suffix *-an*. This implies a 'normalization' towards the Tamasheq pattern.

3.2.8.5   Plural

Adjectives agree in number with the noun they modify. Elicitation of the morpheme provides the form *-ənin*, which is added to the adjectivizer suffix, e.g. *ary-én yay-yay-án-ənin* 'cool water' However, in our text data only few adjectives with the ending *-an-ənin* occur. It would seem that these two suffixes are abbreviated in running texts to a two-syllabic suffix where *-an* and *-ən* are collapsed to a long [a:] which results in the plural ending *-aanin*. This suffix combines the meanings 'adjective' and 'plural'. It seems that the stress pattern of the verbal root influences the stress possible on the suffix. Reduplicated roots tend to have the stress on the first syllable of the

suffix while roots with stress on the final syllable keep it there. Note this change in the two forms for 'big' on the list below (a).

The three roots without adjectival derivation under (b) take *-nin* as the plural suffix. In the forms ending in *-ay* the unstressed syllable is pronounced [eː]

(158)   *Plural adjectives from texts*

	adjective	plural	phonetic	gloss
a)	*zadíig-an*	*zadíg-anin*	[zaˈdigənɪn]	clean
	bəbéer-i	*bəbéer-anin*	[bəˈbeːrənɪn]	big
	bəbbər-án	*bəbbər-áanin*	[bəbːəˈraːnɪn]	big
	yayyay-án	*yayyay-áanin*	[jɛjːɛˈjaːnɪn]	fresh
b)	*bíibi*	*bíibi-nin*	[ˈbiːbənɪn]	black
	cíday	*cíday-nin*	[ˈtʃideːnɪn]	red
	kóoray	*kóoray-nin*	[ˈkoːreːnɪn]	white

One clear exception is *giŋ-gimán* 'good'. Its stem-final *an* is interpreted as part of the suffix and only adds *-ən* for the plural which results in *giŋ-gimán-ən*.

3.2.9   Quantificational adjectives

3.2.9.1   Basic numerals

Most numerals are of Tamasheq origin. 'one' and 'two' are from Songhay and 'twenty' seems to have a cognate in Mauritanian Zenaga (Nicolas 1953:60).

The numerals from 'one' to 'ten' can modify a noun as part of the noun phrase. The numeral 'one' follows a noun in the singular and the numerals 'two' to 'ten' follow a noun in the plural, e.g. *báarar fóoda* 'one child' and *barr-én hiŋká* 'two children' respectively.

An abbreviated form of 'one' serves as indefinite marker for newly introduced entities in discourse, e.g. *surgoy fo* (woman IND) 'a certain woman'.

The numerals from 'two' up can be used as nouns, too, without additional morphology when the referent is clear from the context. In a nominal function they can take the plural morpheme. The numeral

'one' needs to take the nominalizer prefix *a-* to be allowed in a nominal function. This prefix is also present when the word is used in isolation, i.e., when listing the numerals. This is shown by the brackets on the list below.

(159)   Numerals

number	gloss
a-ffó / (a-f)fóo-da	1
hiŋká	2
kaaṛáḍ	3
akkóz	4
ʃammúʃ	5
ʃaaḍíʃ	6
iʃʃá	7
iṭṭám	8
ṭaaṣá	9
maaṛá	10
táaʃinda	20
ṭ-ə-méedi	100
a-jím	1000

3.2.9.2   Compound numerals

The multiples of ten higher than twenty are built by juxtaposition. This kind of compounding is not found elsewhere in the language. It seems to be a imported feature from Tamasheq where the constituents are in this same order, e.g. /səmmos(ăt) təmərwen/ 'fifty' (lit. 'five tens'). The arguments that the 'tens' in Tadaksahak are compounds and not noun phrases are the following: 1) no postposition can be inserted between the two units; 2) final /a/ of *iʃʃá* 'seven' and *ṭaaṣá* 'nine' behave as in tightly knit units 3) consonant-final numerals have the insertion of an epenthetic schwa between the two units and finally 4) the number 'thirty' regularly re-syllabifies in rapid speech (see Phonology 2.4.2.3).

The lexeme *t-ə-méṛw-in* 'ten small ones' is a Tamasheq feminine plural derived from Tamasheq /mӑraw/ 'ten'.

(160)   *Compound numerals*

number	gloss
akkóz-ə-t-ə-méṛw-in	40
ʃammúʃ-ə-t-ə-méṛw-in	50
iʃʃáy-t-ə-méṛw-in	70

Another word derived from 'ten' has survived in the form of *t-a-máaṛuk* 'tenner' which designates the piece of money worth 50 Francs CFA (10x5 francs), it is also used to mean 'small herd (consisting of some ten animals)'.

Numerals from '11' to '19' and all the other single digits between the multiples of ten are built as a coordinate noun phrase 'ten and one/two/…' 'fifty and ...'

(161)   *Formation of numbers 11 – 19*

number	gloss
maaṛá (ə)nd(a) a-ffó	11
maaṛá (ə)nda hiŋká	12
maaṛá (ə)nd(a) iʃʃá	17

The numbers beginning with 'hundred' and higher are expressed in a noun phrase. The lexemes 'hundred' and 'thousand' are the head, and occur in the plural when needed.

(162)   *'hundred' and 'thousand'*

singular	plural	gloss
ṭ-ə-méedi	*ṭ-ə́-mmad*	100
a-jím	*i-jíim-an*	1000

To form the numbers in between, the smaller units are added by inserting *ənda* 'and', e.g. *ṭ-ə́-mmad hinká (ə)nda ʃammúʃ-ə-tə-méṛwin ənda taaṣá* (100 two and 50 and 9) '259'.

The numerals higher than thousand are loans from French, e.g. *miliyón* 'million' and take a plural suffix *miliyón-tan.* Syntax of these

numerals and other types of quantifying modifiers are discussed in 4.1.5. and 4.1.6.

4 Syntax

This chapter starts with a discussion of the syntax of the noun phrase. This includes NPs with possessors, demonstratives, the determiner *aɣo/aɣondo* and modifiers like numerals and adjectives. In the next section (4.2) the different MAN markers with their uses are presented. Following that is a section about argument structure, i.e., the different types of verbs (4.3), and a special type of clause treated under copular clauses (4.4). In section 4.5 relative clauses are described followed by negations (4.6) and several small chapters about information structure (4.7). Finally the section on complex sentences (4.8) discusses clausal coordination, purpose and causal clauses, conditionals and adverbial subordination.

4.1 Noun phrases and adpositional phrases

4.1.1 Overview

The simplest noun phrases (NP) are independent pronouns, which take no further marking for definiteness or plurality. In this section the other types of NP will be presented, i.e. NPs headed by a lexical noun or any other stem capable of functioning as NP head. Such stems can be numerals (4.1.5), adjectives preceded by the determiner (4.1.4), the demonstrative *na* followed by the determiner and pronoun clitics cliticizing to the postposition *wáni/wán-en*. This postposition is also involved in a special type of NP of the type 'Head [noun *wáni*]' (4.1.8).

All elements except the head are optional for a NP.

Modifiers like *da* 'very (one)', *za* 'so', *jé ~ jén* 'only' are discourse particles and not part of the NP. They may follow a NP.

The maximal structure of a noun phrase is as follows:

possessor – Head – (determiner) – demonstrative – numeral – adjective

The determiner gives the NP a different status on sentence level. See discussion under 4.1.4.

In postpositional phrases, the postposition immediately follows the head+demonstrative. Numerals, other quantifiers and adjectives follow the postposition (4.1.8).

(1)   Shapes of NPs

borá person	a person	N
bor-én hiŋká people-PL two	two persons	N num
t-a-ráswoy-t ʒíibit-an F-SG-dress-F.SG be.dirty-ADJZR	dirty dress	N adj
aɣá=n feejí 1s=GEN sheep	my sheep	[N/Pro=GEN] N
a-ʒámar óoda SG-lamb DEM	this lamb	N DEM
aɣo bíibi DET black.ADJ	the black (one)	DET adj
í-səls(a) úuraɣ wán-en PL-clothing gold of-PL	clothes (made) of gold	N [N POSS]

It is rare to find more than two modifiers accompanying a head noun in texts (not counting the determiner). There is no occurrence of a simple NP with both a numeral and a qualifying modifier in our corpus but they can be elicited.

4.1.2 Possessor phrases

There are two possessive constructions. In the first construction the possessor is marked by a postposition *n* (glossed GEN) and precedes the possessed. In the second construction, an element *wáni* (glossed POSS) is used, which follows the possessor. In this construction the possessor phrase follows the possessed.

4.1.2.1   Genitive *n*

The most common possessor phrases are PPs consisting of a NP followed by the genitive postposition *n* (*ən* if following a C) (glossed

GEN). The postposition assimilates to the point of articulation of a following consonant (see 2.4.1.1). The possessor PP precedes the head of the NP.

With this construction a much wider range of semantic connections is expressed than possession only. Similar to English 'of', which ranges from ownership of property to part of whole and many other and more abstract relationships, *n* GEN is found in various contexts, among others, noun formations consisting of a concrete noun and a verbal noun such as *a-gáyis ən wí* (SG-bustard GEN kill.VN) 'bustard killing' or locational attributes such as *tugúdu n cidáy* (tree GEN underneath) 'under a/the tree'.

It was shown earlier (3.2.6.4) that the series of possessive pronouns also contains the genitive marker. As expected, the pronoun takes the place of the noun it replaces. The example below shows both a possessive pronoun in the possessor phrase and a genitive postposition joining two NPs.

(2)   *[[í꞊n   baba] n]   t-a-ɣáʒam-t*
          3p꞊GEN   father GEN   F-SG-court-F.SG
          their father's courtyard

Several possessor phrases can follow each other. Probably the maximal expansion is illustrated by the following example.

(3)   *[[[[aɣ꞊n   amənóoka] ən]   bundú]   n]   míya*
          1s꞊GEN   chief   GEN   stick   GEN   end
          the end of the stick of my chief

The allomorphs of the possessive pronouns are discussed under 2.4.2.4.

4.1.2.2   *Possessor wáni / wán-en*

A possessor phrase formed with the postposition *wáni,* pl. *wán-en* follows the head NP it specifies. The postposition normally agrees in number with the head noun. Semantically an owner relationship is not its first function, most often it specifies the character of the head noun.

(4) a)   *a-máagor*   *[wáy*   *wáni]*
      SG-young.camel   woman   POSS
      a female young camel

    b)   *alʒimáʕa*   *[arw-én*   *wáni]*
      assembly   man-PL   POSS
      a crowd of men (not of women)

    c)   *zaɣrí [altanín*   *wáni]*
      day   Monday   POSS
      a Monday (not a Tuesday)

    d)   *i-ssál-an*   *[t-á-zdək-k*   *wán-en]*
      PL-news-PL   F-SG-cleanness-F.SG   POSS-PL
      news of/about cleanness

There are some examples in our corpus which show lack of number agreement with the head noun. In some instances the head noun is so far away from the particle that the speaker may have 'lost count' and then it agrees with the noun next to it. In the example below, a relative clause is inserted between the head noun and the modifier, and number agreement is with plural *bəkáw-yan* 'jinns', rather than with the singular head of the NP *t-a-nəfus-t* 'story'.

(5)   *t-a-nə́fus-t*   *aɣo* *aɣ=tə-d(á)* *ándi* *se*
       F-SG-deed-F.SG   DET   1s=FUT-do   2p   DAT
       [bəkáw-yan   *wán-en]*
        jinn-PL   of-PL
       the story I want to tell you (pl) is of/about spirits.

A possessive element of similar form is found in KS and KCH (/wane, wana/).

4.1.3 *Noun phrases with demonstratives*

Tadaksahak has six different demonstrative particles that can specify a noun. None of them agrees in number with the head noun and they all follow the noun, with the exception of *na*. The determiner *aɣo* DET

and *aɣondo ~ əndaɣo ~ ənnaɣo* DET.PL are not part of this series of demonstratives since demonstratives can co-occur with this marker. All noun phrases with a demonstrative are definite, whether a DET marker is present or not. The function of the DET will be discussed in 4.1.4.

(6)   *Demonstratives with their basic meaning*

form	meaning	gloss	label
(a)sénda	away from speaker or other deictic center	'that'	DEM.FAR
óoda	near to the speaker or deictic center, including cataphoric	'this'	DEM.NEAR
áyda	close to the addressee, in the proximity	'this'	DEM.PROX
adí	anaphoric, active	'that'	ANA
o	broader reference than *óoda*	'this/that'	DEBR
na N	facing, opposite	'this/that'	OPP

The three first demonstratives on the list are 'true' demonstratives, i.e. they can combine with any type of noun and specify it. They mark a three-way difference in distance, where *óoda* 'this' is close at hand while *sénda* 'that' is far away and *áyda* 'this' is in the proximity, yet not close at hand. *o* DEBR (DEmonstrative with Broad Reference) and *na* OPP (opposite) have a specific use and can therefore not combine with all nouns. *adí* ANA (anaphoric) functions on discourse level only; there is no spatial value linked to it.

The term *né* 'place' can combine with all the demonstratives except *sénda* 'that' and *na* 'opposite'.

The neutral referent *hé* 'thing' can combine with most demonstratives (except *sénda* 'that' and *na* 'opposite') and behaves then almost like a pronoun. Find examples in the appropriate sections below.

4.1.3.1 *sénda ~ asénda* 'that'

(7) *záw-kat* *aɣáy* [*huur(ú)* *asénda*]
take-VEN 1s fire DEM.FAR
Bring me that fire!

This demonstrative can combine with an NP containing a possessive pronoun.

(8) *ni=n* *haam(ú)* *asénda*
2s=GEN meat DEM.FAR
that your meat / your meat there

In combination with other determiners (see below) *sénda* may be shortened and appear as *sé* 'there', normally carrying stress (not to be confused with *se* DAT).

This demonstrative has its origin in Tamasheq. It can be used adverbially and as modifier of a noun phrase.

4.1.3.2 *óoda* 'this'

The demonstrative *óoda* combines with location names and can be found together with a possessive pronoun.

(9) a) *A-ʃʃaɣal* *óoda* *a=b-z-éḍəẓ* *aɣay.*
SG-work DEM.NEAR 3S-IMPERF-CAUS-be.tired 1s.IO
This work makes me tired.

b) *aɣá=n* *haw(u)* *óoda* *əndáŋga…*
1s=GEN cow DEM.NEAR when
this my cow, when…

c) *a=kkun(a)* *íŋgi* *Assáylal* *óoda* *be.*
3s=find 3p.EMP loc.name DEM.NEAR LOC
he found them in Essaylal here (the closer of two possible places with that name).

d) *…hár jé   i-múu-dar-an   óoda   káamil*
until only PL-ACT-animal-PL DEM.NEAR all
i꞊hun(u)-án   sénda   ka.
3p꞊leave-ALL   DEM.FAR   LOC
... as soon as all these animals were dead there.

The combination with *he* 'thing' *+ óoda* can be translated with 'this' as in 'he did this:...' and is in this form mostly pointing ahead in time, i.e. has a cataphoric function.

(10)   *a꞊ddá   [h(e) óoda]   a꞊ss-og(á) áŋga*
3s꞊do   thing DEM.NEAR 3s꞊CAUS-approach 3s.EMP
[éelaw   ən   t-í-nʒar] …
elephant   GEN F-PL-nostril
he did this: he approached it (the hot grease) to
Elephant's nostrils…

KCH and KS have a demonstrative /woo/ (Heath 1999a:82; 1999b:97) that can occur together with an emphatic particle /da/ in Gao (Heath 1999b:133, 265). One hypothesis is that *óoda* 'this' consists of /woo/ reduced to /oo/ plus /da/ the discourse function particle (glossed INT 'intensifier') also found in Tadaksahak. Note that several Tamasheq speech varieties also have a particle /da/ to indicate 'here, there, at the place in question' (Prasse et al. 2003:69, also Sudlow 2001:333).

4.1.3.3   *áyda* 'this'

The deictic use of this determiner indicates closeness to the addressee.

(11) a) *ʃ-inʃ(á)꞊a   táabəl   áyda   be.*
CAUS-put.on.BND꞊3s   table   DEM.PROX on
put it on this table (close to you)!

b) *andə꞊gguná   gánd(a)   áyda*
2s꞊see   land   DEM.PROX

ande꞊b-guná(꞊a?)   n(e) áyda   ka…
2s꞊IMPERF-see(꞊3s?) place DEM.PROX LOC
You(pl) see this land you see (it?) around here…(it is a lot and you think it is worthless)

On discourse level its use is anaphoric.

(12)   *t-a-cíḍaw-t*   *áyda*   *a=tə-ṣót-kat*   *áy=n*   *wəl*
          F-SG-bird-F.SG   DEM.PROX   3s=FUT-fly-VEN   3s=GEN   heart
          ka...
          LOC
          This bird (earlier topic in discourse) flew from her heart…

áyda occurs most frequently with *né* 'place' to indicate a temporal 'now' or a spatial 'here'. Acoustically this is very close to *néeda* 'here' [né:da] while *n(e) áyda* is pronounced [néjda]. In texts the two expressions are sometimes interchangeable but in deictic use they are clearly distinct from each other, i.e., *néeda* gives a very specific place while *n(e) áyda* is close by but not a specific spot (see second line (11)b).

Sometimes when *h(e)* 'thing' + *áyda* occurs, e.g., 'he did this (action named before)...'. it can be replaced by *h(e)* + *adí* 'he did this (afore named action)'.

One possibility of an origin of this determiner is a fusion of two morphemes: *a=* '3s' and *da* INT. It has been shown (3.2.6.4) that this clitic has an allomorph *ay=* when it attaches to something other than a verb stem. A semantic paraphrase could then be '(the/a) very him' indicating that 'he' is known and has been mentioned before.

4.1.3.4   *adí* 'anaphoric'

adí is always anaphoric to an established referent in the discourse, marking a participant or other referent still active in the hearer's mental representation.

It can often be observed together with the neutral noun *he* 'thing' to refer to some past event.

(13) *aywa*   *t-a-nə́fus-t*   *a꞊bbén*   *məʃʃin*   *dá*
     RESUME   F-SG-story-F.SG   3s꞊be.finished but   INT
     aṭṭáalib   *a꞊kkás*   *alwalí*   *dəffə́r*   *[h(e) adí]*
     student   3s꞊be   seer   after   thing ANA
     so, the story is finished, however, the student became a
     seer after this (the deed told in the story).

In Songhay of Gao there is an anaphoric particle /din/ with a similar function (Heath 1999b:131). Nigerien Tawəlləmmət Tamasheq uses a demonstrative with exactly this shape but with a different function (Prasse et al. 2003:70).

4.1.3.5   *o* 'broad anaphoric'

The element *o* refers to a broader referent than a particular point in time or place - rather to a period or an area. In the following short exchange this determiner is used. It does not refer to a particular moment during the morning, but rather to the more vague time period 'morning':

(14) Q: *c(i)*   *agúd a꞊ttén?*
       what? time   3s꞊arrive
       when did he arrive?

     A: *alfájir*   *o.*
       morning   DEBR
       this morning. (of the day the conversation takes place)

o is used most frequently with temporal and spatial nouns. In a temporal context it can stand in opposition to *óoda* which is cataphoric.

Particularly with a perfective aspect on the verb, the particle is used to indicate anteriority in time.

(15) a) *t-áa-dwi-t*   *o*   *i꞊zzoɣ*
       F-SG-afternoon-F.SG   DEBR 3p꞊fight
       This (past) afternoon they had a fight.

     b) *...aɣa꞊m-húnu-kat*   *aɣ꞊n*   *aláaħit*
       1s꞊SUBJ-leave-VEN   1s꞊GEN   tablet
       [t-áa-dwi-t   *óoda]*
       F-SG-afternoon-F.SG   DEM.NEAR
       ...I (may) finish my (koranic) lesson this (coming) afternoon."

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(17)   [ná   aɣo]   a=b-s-ə́wəl   t-ée-laq-q
          OPP   DET   3S=IMPERF-CAUS-sharpen F-SG-knife-F.SG
          [ná   aɣondo] i=f-kaṭám-kaṭam   haamú
          OPP   DET.PL   3p=IMPERF-cut   meat
          this (one) sharpens a knife, those are cutting meat.

Syntactically, this conglomerate is treated like a full NP consisting of a noun with determiner.

In texts, *ná* alone is most frequently found determining nouns of location, mostly together with a shortened form of the demonstrative 'that' *sé* and it conveys a location facing ('vis-à-vis') the place from where the action starts.

(18)   a=ffur-an=a   [[n(a) áŋgu]sé]   ka
          3s=throw-ALL=3s   OPP place DEM.FAR   LOC
          he threw him away over there.

When the particle appears twice in the same sentence, it indicates two opposed possibilities of the same entity, as marked in English with 'this or that'. The following command encodes such an instance.

(19)   wa   dá   [ná   hó]   wa   dá   [ná   hó]
          IMP do   OPP thing.DEBR IMP do   OPP thing.DEBR
          do (pl) this (and) do (pl) that!

ná occurs three times in the corpus in the introductory clause to a story, accompanying the future major participant. In all these cases the storyteller may have conveyed that she/he judges the behavior of that particular participant undesirable, not good for the hearer to copy.

(20)   i=ccí   kəlá kəlá   [na   wáy   fó]
          3p=say   once once   OPP woman   IND
          hó   sé
          thing.DEBR   DEM.FAR
          there was once this woman...

Songhay of Gao has a preverbal direct object morpheme /na/ that also precedes the noun (or pronoun) it marks (Heath 1999b:212). Semantically far from determiner, this particle is by its shape and syntactic behavior the closest candidate for an origin of *ná*.

4.1.4 NPs with aɣo 'determiner'

The determiner *aɣo* follows the noun it modifies and is always followed by an additional element, typically a demonstrative, e.g. *tugúdu aɣo óoda* /tree DET DEM.NEAR/ 'this tree'.

The particle is attested in singular and plural form with dialectal variants.

(21)   *Forms of the determiner*

aɣo	DET	
aɣondo	DET.PL	Talatayt
əndaɣo	DET.PL	Meneka
ənnaɣo	DET.PL	Infukaraytan
waŋɣo	DET.PL	Tamalet

The plural forms may be *aɣo* fused with other particles known in the language, i.e. *ənd(a)-aɣo* (with-DET) 'those' with the contracted form *ənn-aɣo* and *aɣo-(ə)nd(a)-o* (DET-with-DEBR) 'that with those' and a last variant that seems to contain a Tamasheq particle /w-/ that is used in the same environment. Especially the first variant *aɣondo* is also found with the additional morpheme *no* 'there' intervening *aɣonda-no* 'those there (= at question)' where the last element (demonstrative) is dropped in favor of a semantically more locational element.

The particles do not seem to have lexical stress, rather the following element, e.g., an inflected verb, a demonstrative or a postposition, carries the stress.

aɣo can be combined with all demonstratives.

In combination with the determiner an NP has a different status on sentence level. NPs with a head noun and a determiner are always topicalized or constitute an otherwise salient element of the sentence.

The determiner together with *ná* OPP may also function as a pronoun for (con)textually established entities without a noun present. *Aɣo* is also found after NPs that are followed by a relative clause (see 4.5.1).

The origin of the particle is not easy to find. It is attested in the other Northern Songhay languages but not in this shape in Mainstream Songhay.

4.1.4.1   *aɣo + demonstratives*

These examples are all given with a larger context, sometimes in English, to show the salience of the NP. The examples are given with the demonstratives in the same order as in the previous section.

(22)   (when he left his wife, she was washing <u>dishes</u>.)
          a꞊yyed-kat꞊a   *t-oo-lás-t*
          3s꞊return-VEN꞊3s   F-SG-repeat-F.SG
          tuw-yén   *aɣondo*   *sénda*   *i꞊nə-hímay.*
          receptacle-PL   DET.PL   DEM.FAR   3p꞊NEG.PERF-wash
          (when) he came back to her again, those dishes were not
          (finished) washing.

(23)   *fur*   *aɣ(o)óoda*   *áŋga*   *a-ḍə́gəg*
          throw.VNi   DET DEM.NEAR   3s.EMPi   SG-fear
          a꞊sə́-mmay   *ni꞊wáni*   *a-ḍə́gəg*   *wáni!*
          3s꞊NEG.IMPERF-own   2s꞊of   SG-fear   of
          this throw, there is no fear in it, (but) yours was of fear!
          (= I was not afraid when I threw, but you were!)

In texts, *óoda* appears more frequently with DET *aɣo* than without it. This seems logical since this particle indicates 'at the center of interest' and this would often be the (re-introduced) topic or the thing that is going to be talked about, i.e., such a noun phrase is also marked for topicality or focus and is salient in its context.

(24)   (do you understand this? [speaker addressing hearer])
          zama aaru aɣó   *(a)yda*   *a꞊ttén*   *ənda*
          after man DET   DEM.PROX   3s꞊arrive   with
          t-a-kárḍas-t   *óoda*   *(h(e) adí*   *za)*
          F-SG-letter-F.SG   DEM.NEAR   thing ANA   LC
          a꞊nn(á)   *áa꞊se*   *n*   *i.*
          3s꞊give   3s꞊DAT   SEP   3p
          after this man had arrived with this letter, (so this) he gave
          them (camels) to him.

(25)   (a marabout's wife, after having declared that it was not
         the food that had brought her to this (other) man but his
         person, gets the answer:)
         kaláakala
         no

         he   (a)ɣo (a)dí wiji   hé   aɣ꞊tə-háaṣi-an   aɣáy.
         thing DET   ANA is.not thing 1s꞊FUT-look-ALL   1s
         no, this (that you want to live with me) is not something
         that I will consider.

The only occurrence of *o* DEBR following *ayo* is found where the
specified referent is an utterance. Later this utterance is used as a
name, around which the whole conflict of the story turns. It is here
marked as salient for the story.

(26)   (Hare heard her…)
         s(a) a꞊ccí   he   (a)ɣo (ó)
         COMP   3s꞊say   thing DET   DEBR

         s(a) ínnazag   a꞊ccí   bárr-en   se
         COMP   hyena   3s꞊say   child-PL   DAT

         'andə꞊b-déeraw' ayo   (ó).
         2p꞊IMPERF-share   DET   DEBR
         …that she said this, that Hyena said this "You(pl) share"
         to the children.

Final vowel shortening does not allow length to mark the particle. It is
in fact stress on the last syllable of *ayó* that indicates the presence of
another morpheme.

When *ná* 'opposite' co-occurs with *ayo* in order to modify a noun, the
combination follows the noun and then behaves like all the other
demonstratives.

(27)   *Arə꞊háw   t-a-bákar-t   [[tugúdu   nná ayo] ka]*
         1p꞊attach   F-SG-ewe-F.SG   tree   OPP DET   LOC
         We attached the sheep at that tree over there. (in front of
         the speaker at the moment of the report, pointed at)

4.1.4.2   *aɣo + wani/wan-en*

When *aɣo* occurs together with the possessive element *wani*, it follows the head noun immediately. When a demonstrative is present, it follows DET. Two of the examples have a location name that is referentially definite.

(28) a)   *t-a-dáalat-t*   *aɣo*   *[áagar   wáni]*
           F-SG-be.green-F.SG   DET   tree.sp   POSS
           (the) green of the 'aagar'-tree.

      b)   *gánd(a)   aɣo   [Idéeləman wáni]*
           earth   DET   loc.name   POSS
           the region of Indeliman

      c)   *mán aɣo óoda   [Áffud   wáni]*
           name DET DEM.NEAR   loc.name   POSS
           this name (of) 'Affud' (=Ansongo)

In constructions with possessive markers, *aɣo* seems to be insensible to number as the following example shows (see also (c) below):

(29)   *i-múṇas   aɣo [Áyyar   wáni] i꞊b-zarɣáf.*
            PL-camel   DET   loc.name   POSS 3p꞊IMPERF-be.spots
            the camels of the Air have large spots.

4.1.4.3   *aɣo + n*

This combination is found in a type of compound like words e.g. 'airplane' and 'feast'. Note that the constituent order is different from the regular genitival construction. Here the head precedes the modifier and *aɣo* seems to be insensible to number (c).

(30) a)   *[t-óo-ruf-t   aɣo   n   i-ʒínn-an] á꞊mmay*
           F-SG-car-F.SG   DET   GEN   PL-sky-PL   3s꞊have
           áfr-an   hiŋká.
           wing-PL   two
           The airplane (lit: car that of sky) has two wings.

      b)   *[zaɣrí   aɣo   n   jinjirí]*
           day   DET   GEN   prayer
           kullú bor(á)   a꞊dd(á)   ée-zəl.
           each   person   3s꞊put   SG-dress.up
           (On) the feast (lit: day that of prayer), everybody dresses up.

    c)   *í-ŋgur-an*   *aɣo*   *n*   *agíilal*
       PL-braid.type-PL   DET   GEN   rear
       neck braids (braided in a particular way)

The next example is standard for the terms 'older and younger sibling'. They always occur with a determiner of some kind (often a possessive, e.g., 'my').

(31)   *aɣo*   *n*   *céena*   *a꞊tə́-ci*
        DET   GEN   younger.sibling   3s꞊FUT-say
        aɣo   *n*   *bér*   *se:*
        DET   GEN   older.sibling DAT
        The younger (brother) would say to the older (brother):

Temporal expressions are also found with this construction.

(32)   *Ar꞊n*   *alzímmət* *ayo*   *n*   *bi...*
        1p꞊GEN   chat   DET   GEN   yesterday
        Our chat (of) yesterday …

4.1.5   NPs with numerals

4.1.5.1   Numerals 'one' to 'ten'

Numerals from 'one' to 'ten' follow a noun like most other modifiers. The noun is in the plural and a demonstrative or a possessive may be present.

(33) a)   *...aɣa꞊m-d(á)*   *ándi* *s(e)*   *[a-sə́stən* *fóo-da]*
       1s꞊SUBJ-do   2p   DAT   SG-question one-INT
       ... to ask you one question

      b)   *[bor-én*   *kaaṛáḍ]*   *ə-b-guŋg(ú)*   *[i-múṇas* *hiŋká]*
        person-PL   three   IMPERF-lead   PL-camel   two
        (here are) three persons leading two camels

      c)   *i꞊mmáy*   *[í꞊n*   *nan-én*   *hiŋká]*
        3p꞊have   3p꞊GEN   mother-PL   two
        They had their two mothers

All numerals from 'two' to 'ten' can function as the head of an NP.

(34) *[hiŋk(á)]*   *i̲b-n-ə́bdəd*
       two   3p=IMPERF-RECI-talk.BND
       Two are talking with each other.

Postpositions precede modifying numerals. An example is given below in (59).

One occurrence of the plural indefinite marker *cind-én* with a numeral was found in the introductory sentence to a story. The indefinite marker follows the modified noun immediately and the numeral closes the NP.

(35) *[arw-én*   *cind-én*   *hiŋk(á)]*   *í̲báara*
       man-PL   IND-PL   two   3p=be
       (there) were two certain men

Both men are equally important for the ensuing story and may therefore be introduced this way.

4.1.5.2   *Numerals from 'ten' to 'ninety'*

Noun phrases with numerals higher than 'ten' are formed as a genitive construction. The modified noun, i.e. the head and last element of the clause, is in the singular.

(36) a) *táaʃinda*   *n*   *zaɣrí*
         twenty   GEN   day
         twenty days

     b) *ṭáasay-t-ə-mérw-in*   *ən*   *borá*
         nine-F-PL-ten-PL   GEN   person
         ninety people

This construction can be used to express 'for X money' where the numeral gives the amount of money and the head noun is the item paid for. Often the head is a mass noun but it can also be some other item that can be bought. The numeral refers to the smallest monetary unit, 'one coin' of 5 Francs CFA.

(37) *záw-kat*   *aɣáy [táaʃinda*   *n*   *ji̲]*
       take-VEN   1s   20   GEN   butter
       Bring me butter for 100FCFA.

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4.1.5.3   Numerals higher than 'hundred'

The terms '100' and '1000' and 'million' are nouns that are counted like other entities and then appear in the plural. They are mostly used in connection with money where the numeral '100' designates the 500CFA bill/coin. The examples below illustrates that the postposition follows the noun immediately even if this happens to be a complex numeral.

(38) a)   *aɣa=ṣṣ-úr*   *ana*   *ʃammúʃ-ə-t-ə-mérw-in*
    1s=CAUS-put.on   2s.DAT   five-[ə]-F-SG-ten-PL
    [a-jím   *be*   *ənda [ṭ-ə́-mmad*   *ʃammúʃ]]*
    SG-thousand   LOC   with   F-PL-hundred   five
    I add you fifty on the thousand and five hundred.
    = I add you 250CFA on the 7500CFA.

   b)   *s-ə́dbəl-an*   *miliyón-tan [zaɣr-én*   *be*   *kaaṛáḍ]*
    CAUS-heap-ADJZR   million-PL   day-PL   LOC   three
    heaping up millions (in money) in three days

4.1.5.4   Ordinals

Ordinal numbers are formed as a phrase containing first the determiner *aɣo*, then the comitative *ənda* 'with' and then the numeral. According to regular vowel elision rules /o/ is always heard but the final /a/ of *ənda* is deleted when a vowel initial numeral follows. For some unknown reason, *aɣo* recieves stress in this construction.

The numeral '1' cannot be combined with this paradigm. Instead a noun phrase based on a verb stem comes in place of the numeral.

(39)   Ordinals
    phrase   gloss
    aɣo yizzár-an   first
    DET be.ahead-ADJZR
    aɣó (ə)nda hiŋká   second

> *aɣó (ə)nd(a) akkóz*   fourth
>
> *aɣó (ə)nda maaṛá*   tenth

This paradigm can constitute an NP by itself when the referent is known, or it can be a modifier to a noun.

(40) a) *[aɣó (ə)nda   hiŋká]   a꞊nə-yée-kat*
          DET   with   two   3s꞊NEG.PERF-return-VEN
          the second did not return.

    b) *ciimí [aɣó (ə)nda   kaaṛáḍ]...*
          truth DET with   three
          the third truth...

When counting days yet another paradigm is possible. The referent of the possessive pronoun *ay꞊n* 'its' in the example below is 'this current month'. Thus referring to a definite entity the numeral can be read as an ordinal with a literal rendering 'its (month) twentieth'.

(41) *alħád   [ay꞊n   táaʃinda],   wiji?*
         Sunday   3s꞊GEN   20   is.not
         Sunday is the twentieth, isn't it?

4.1.5.5   Multiplication and distributive clauses

Multiplication can also be expressed with a simple NP. The head is a numeral in the plural and the modifier numeral expresses 'how many times'.

(42) *iʃʃ-én   kaaṛáḍ*   *kaaṛaḍ-én iʃʃá*
         seven-PL 3   three-PL 7
         3 times seven   7 times three

Numerals above 'ten' use a different paradigm that can also be used for numerals below 'ten'.

(43) a) *táaʃinda   har   maaṛá*
          twenty   until ten
          ten times twenty

    b) *ʃammúʃ   har   maaṛá   (ə)dn(a)   a-ffó*
          five   until ten   with   SG-one
          eleven times five.

Distributive clauses reduplicate the numeral. 'one' appears first in a shortened form and then as the full count noun. The other numerals do not change shape when used in this paradigm.

(44) a) *a꞊b-dumb(u)-i   je   (ə)nd(a)   a-ffó   a-ffóo-da*
3s꞊IMPERF-cut-3p only   with   SG-one   SG-one-INT
He had simply killed them one by one.

  b) *wa   mə-ṭəŕ-ṭəṛ   ənda hiŋká hiŋká.*
IMP   RECI-DUP-line.up   with two   two
Line (yourself.pl) up two by two!

4.1.5.5.1 One and the other

Several strategies exist to express 'one and the other'. When both referents are established and equally important for the ongoing action, the following construction can be used:

(45) *a-ffó   (a)꞊cc(i)   a-ffó   se...*
SG-one   3s꞊say   SG-one   DAT
One said to the other:...

However, there exists also the expression *fáḍḍan ~ fáaḍan* that denotes 'other', 'different from another known X' in all contexts.

(46) *aɣo fáḍḍan   a꞊cc(í)   áɣ꞊n   caráy   se:...*
DET other   3s꞊say   3s꞊GEN   friend   DAT
The other said to his friend:...

When the additional feature 'antagonist' of an ongoing story needs to be conveyed, yet another way is possible to express 'the other(s)': The demonstrative *na* 'opposite' together with the determiner *aɣo* encode 'the other (opponent)'. This is exemplified in example (47).

The text material preceding the following example informs the listener that the first son, the antagonist of the other sons, had received a limping horse. Then follows the clause:

(47)   a꞊nná   ná   aɣondo   se   baar-én
         3s꞊give   OPP   DET.PL   DAT   horse-PL
         (and) He (father) gave (good) horses to the other ones.

4.1.6 NPs with other quantifying modifiers

Several modifiers are found that indicate the whole group of a given set. *káamil* 'all' (from Arabic /kaamil/ 'entire') always follows the noun it modifies and does not agree in number.

Examples of *káamil* 'all'

(48) a) [i-mənóokal-an   káamil]   i꞊kkəsán   i-múnsuw-an.
         PL-chief-PL   all   3p꞊refuse   PL-meal-PL
         All the chiefs refused to eat.

     b) [[hé (a)ɣo sénda]   káamil]   nín   a꞊f-keedí
         thing DET DEM.FAR   all   2s   3s꞊IMPERF-be.on
         All that is your responsibility (Lit: lays on you).

     c) ba   gə́dəm   áa꞊be,   [ándi   káamil]
         IMP   lay   3s꞊LOC   2p.EMP   all
         Lay(pl) on him, you all!

In some instances with a singular noun it can be read as 'every one of a given entity' as in *ənd(a) a-hándag káamil* 'towards every place'. In other instances a reading is also 'entirely' or paraphrased differently 'all of X' as in *a꞊ŋŋ(á)꞊a, áŋga káamil* 'he ate him entirely'.

kullú 'each' can be read as 'each one of a given entity' and so also indicates 'all' in some instances. Again, this modifier does not agree in number with the head noun which it follows.

Examples of *kullú* 'each'

(49) a) ún   za   [hé (a)ɣo óoda   kullú]
         indeed LC   thing DET DEM.NEAR each
         alfáqi   óoda   a꞊ssə́stən   ənd(a)꞊á....
         teacher   DEM.NEAR   3s꞊ask   with꞊3s
         So indeed, all this the teacher was asking himself....

     b) [íŋgi   kullú] a꞊ffárraḍ   áy꞊n   ga   se
         3p.EMP   each   3s꞊neglect   3s꞊GEN   self   DAT
         Each one of them (preventions) he neglected for himself.

kullú is rarely found with plural entities and the second example above could be analyzed as an equational clause and then read 'they

(preventions) are each (something) ...' so insisting on each single action yet still including all of them.

A dialectal variant is *hák* 'each' (from Tamasheq) used in the southern region, as found in *hak borá* 'each person' or *hak a-ffo* 'each one'. It precedes the noun it modifies.

Another expression for 'each/every' is *íttilla* (from Tamasheq). Like *hák* this modifier precedes the noun it modifies. It is only used with singular nouns. When combined with countable time expressions like 'day' each single entity is evoked. In that context *káamil* and *íttilla* are synonyms: *íttilla záɣri = záɣri káamil* 'every day'. Less countable time expressions like 'moment' convey 'every moment = whenever'. When *íttilla* stands by itself a time referent is evoked 'each time/whenever'. 'person'-type words may be perceived as uncountable since the modification encodes 'everybody'.

(50) a) [*íttilla zaɣr(í)*]   *i̧=tə-tén*   *sénda...*
each day   3p=FUT-arrive   DEM.FAR
Each/every day they would arrive there...

b) [*íttill(a) ágg*   *aádəm*]   *máṇṇ(a)*   *a=tə-ḍáaṛ=a*
each son.of   Adam   lack.food   3s=FUT-harm=3s
Everybody will suffer for lack of food.

c) [*íttill(a)*]   *a=yyíkti-kat*   *aɣáy...*
each   3s=remember-VEN   1s
Each time (=whenever) he remembers me...

Different from Mainstream Songhay, where /kul/ has the above functions as well as some others, Tadaksahak has different quantifiers, which all tend to have their specific function but sometimes overlap. *kullú* is mainly used with singular entities to evoke 'each of X' underlining the single unity of a set, where as *káamil* mostly modifies countable plural nouns and then denotes 'all Xs'. This can be very generic as in *bor-en káamil* 'all people = everybody' where it is equivalent with *íttilla bora* 'everybody'.

An expression for a non-specified 'every one of a group' is *káaka*. This form may be related to the postposition *ka* LOC that can in some contexts be read as 'from among'. A possible analysis is then *X k(a) áa=ka* 'from among X he/she/it in (it) = whoever/whatever'. However, the term is invariable even when used with plural nouns (example d) below).

(51) a)   *məʃʃín*   *[t-a-báɣor-t*   *káaka]*   *ni=ddá*
         but   F-SG-fortune-F.SG   whatever   2s=make
         gánda   *ka*   *(ə)n=sə́-mmay...*
         land   LOC   2s=NEG.IMPERF-have
         But whatever fortune you make in a country that is not yours...

     b)   *wala* *[he*   *káak(a)]*   *a=ddá...*
         or   thing whatever   3s=do
         or whatever he did...

     c)   *[bora*   *káak(a)]*   *a=f-kéeni*
         person   whatever   3s=IMPERF-sleep
         ayn   *á-dagar*   *dá*   *a=tə-kéeni.*
         3s-GEN   SG-share   INT   3s=FUT-sleep
         Whoever is sleeping, his share is laying (down), too.

     d)   *[ary-en*   *káaka]*   *ni-b-nín…*
         water-PL   whatever   2s-IMPERF-drink
         whatever water you drink…

'Many' or 'much' is expressed with the verbal root 'be much/many' *babó* derived as adjective and then following the noun, e.g. *ay=n almán babó-(a)n* (3s=GEN herd be.numerous-ADJZR) 'his big/ numerous herd' or *id-almáʕna babó-(a)nən* (PL-meaning be.numerous-ADJZR.PL) 'many meanings'.

A genitive construction with *íccet* 'quantity' expresses 'a lot of', with pejorative connotations. *íccet ən t-a-báʒnaw-t* (quantity GEN F-SG-old.donkey-F.SG) '(what) quantity of old donkey' is said about a person that works slowly or moves inelegantly.

'Few' or 'little (bit) of' is expressed in a genitive construction. The reported way to say 'a little bit of X' is *X n hé* (X GEN thing) or *árat ən X* (thing GEN X). The latter is imported from Tamasheq together with the syntax with a reversal of head and dependant from the Tadaksahak point of view. In our texts a conglomerate of both is used in all but one case, e.g., *árat ən yél ən hé* (thing GEN green.grass GEN

thing) 'a little bit of green grass'. The double expression may be a way to insist on the really very small amount.

'not much of an action' or an otherwise more abstract entity is expressed with a clause. The clause can be repeated to convey an intensified 'small amount' as it is done to answer "Do you know French?" *h(e) á=cceená, h(e) á=cceená* (thing 3s=be.small) 'very little'. In the second example given below, however, the repetition with the preceding *ənda* 'with' is distributive to convey 'a little bit here and a little bit there'.

(52) a) *aɣ=tə-dǝ́wwənn-ət   áa=ka   h(e) a=cceená*
         1s=FUT-speak   3s=LOC   thing 3s=be.small
         I will speak a little bit about it.

     b) *alxér a=f-tén*
         peace 3s=IMPERF-arrive
         ənda h(e) á=cceená   h(e) á=cceená
         with   thing 3s=be.small thing 3s=be.small
         Peace arrives little by little...

4.1.7 NPs with adjectives

In a simple NP of the type 'a beautiful girl' the pattern is the same as with the other modifiers. The adjective follows the modified noun and agrees in number with the noun. Simple NPs with an adjective occur most frequently in the introductory clause of a new participant, e.g., 'they had a black goat'. A demonstrative and/or the determiner may intervene and then precedes the adjective.

(53) a) *t-á-ŋgud   giŋ-gimán*
         F-SG-girl   DUP-be.good
         (a) beautiful girl

     b) *aarú bum-bun-án*
         man   DUP-be.dead-ADJZR
         (a) dead man

    c)   *bi-yén*   *giŋ-gimán-ən*
           shade-PL   DUP-be.good-ADJZR.PL
           pleasant shades

    d)   *i-wútay*   *yibrár-anən*
           PL-year   be.bad-ADJZR.PL
           bad years

    e)   *ay-n*   *míya sə-sməd-án*
           3s-GEN   beak   CAUS-be.pointed-ADJZR
           its pointed beak (of a bird)

    f)   *íizac(e)*   *asénda*   *gin-gimán*
           youngster   DEM.FAR   DUP-be.good
           that handsome young man

    g)   *diní baarí*   *aɣo* *n-ə́frən-ən...*
           take horse   DET   RECI-be.chosen-ADJZR
           take the best horse... (Lit: horse that is chosen...)

    h)   *hé*   *(a)ɣo duuw(a)-án ...*
           thing DET   be.better-ADJZR
           it is better... (Lit: the better thing is...)

    i)   *aaru ná*   *aɣo*   *ceen(á)-an*
           man OPP   DET   be.small-ADJZR
           that other young man

There are no occurrences of a noun modified by two adjectives. Numerals can occur together with adjectives. The following example is elicited.

(54)   *aɣa=gguná surgó-(e)n kaaṛád*   *giŋ-giman-én*
       1s=see   woman-PL three   DUP-be.good-ADJZR.PL
       I saw three beautiful women.

Adjectives preceded by *aɣo* as the head can serve as NPs. An indefinite referent formed by an adjective is preceded by *a-ffó* 'one'.

(55) a)   *aɣo yaynáay-an*   *a=nə-gíman.*
         DET be.new-ADJZR   3s=NEG-PERF-be.good
         the new (one) is not good.

    b)   *a-ffó*   *yaynáay-an*   *a=dduwá*
         SG-one   be.new-ADJZR   3s=be.better
         a new (one) is better.

4.1.8 Postpositional Phrases

Postpositional phrases contain a postposition and a NP. The postposition follows the head of the NP and some modifying phrases or elements, but precedes other modifiers. This behavior is shown below.

The postposition follows the modifying element when the head is followed by a possessive phrase with *wáni/wán-en* and when the head is followed by a demonstrative, e.g.

(56) a) *[zaɣr(í)   áltanín   wáni] ka*
        day   Monday   of   LOC
        on a Monday

    b) *[í-ɣərm-an óoda]   ka*
        PL-town-PL   DEM.NEAR   LOC
        in these towns

    c) *[Tassárəst óoda]   be*
        loc.name   DEM.NEAR   LOC
        in this T.

    d) *[[ho sénda]   be] za...*
        thing.DEBR DEM.FAR   LOC   LC
        so because of that... (Lit: so on that...)

    e) *[íi-zəŋ(a) adí] daw*
        PL-enemy   ANA   LOC
        (arrived) at the enemy's (place)

    f) *[surgóy   káaka]   daw*
        woman   whatever   LOC
        at whatever woman('s place)

    g) *[íizac(e)   aɣo sénda]   se*
        youngster   DET DEM.FAR   DAT
        to that young man

Other modifiers follow the postposition. This is the case of adjectives and quantifying modifiers. The verb 'to look for' in the following example has an obligatory DAT argument. The dative postposition *se* is placed before the adjective.

(57) *aɣa꞊bb-ə́mmaɣ aɣ꞊n almán   se   ʃi-ʃʃiy-án*
      1s꞊IMPERF-search 1s꞊GEN herd DAT   DUP-not.be-ADJZR
      I am looking for my lost herd.

Likewise in the following PP the postposition immediately follows the noun:

(58) *tuw-yén   ka   zadíg-ənən*
      bowl-PL   LOC   be.clean-ADJZR.PL
      in clean bowls

This is different from KCH and KS where the postposition is always the last element of a NP even when an adjective is present (Heath 1999a:83 and Heath 1999b:114).

Numerals modifying nouns behave the same way as adjectives. The same is true of *káamil* 'all'.

Examples:

(59) a) *s-ə́dbəl-an   miliyón-tan [zaɣr-én   be   kaaɾáḍ]*
        CAUS-heap-ADJZR   million-PL   day-PL   LOC   three
        heaping up millions (of money) in three days

     b) *áy꞊n saffarí   a꞊yyába-kat [id-áddəwəl ka káamil]*
        3s꞊GEN medicine   3s꞊lack-VEN PL-country   LOC all
        there is no medicine (against it) in any country.

4.1.9 NP Coordination

4.1.9.1 Conjoining *ənda* 'with, and'

ənda 'with, and' has several functions and meanings, as discussed in 3.2.7.8 (instrument preposition), and 4.8.3.1 (conditional). Between NPs, *ənda* is used as a coordinative element.

(60) a) *á꞊mmay haw-yén   ənd(a)   i-mə́ṇas.*
        3s꞊own   cow-PL   with   PL-camels
        he owns cattle and camels.

b) *surgó-(e)n ənd(a)* *arw-én ənda* *bárr-en* *i̱ttén*
woman- PL with man-PL with child-PL 3p̱arrive
women, men and children arrived.

In enumerations, the verb may break up the series, and one item appears before the verb. In anticipation of the further items, pronominal reference on the verb is plural.

(61) *mammaní i̱báara* *ənda fatílla n* *ṭónd-en*
perfume 3p̱exist with torch GEN stone-PL
ənd(a) *id-aṣṣáabu-tan* *ənda takúla-tan.*
with PL-soap-PL with bread-PL
there are perfume, and torch batteries, and (pieces of) soap and (loaves of) bread.

4.1.9.2 Disjunctive *meɣ*, *mádaɣ and* wala *'or'*

There are a number of disjunctive particles, the most common being *meɣ* 'or' (from Tamasheq), which does not seem to have lexical stress. This particle is part of the following NP and is unaccented as long as there are less than two unaccented syllables following.

In the second example below the noun is not repeated and so *meɣ* comes to stand between two numerals. Even without the noun, the numerals do not need additional morphology to occur in this kind of phrase.

(62) a) *jí* *ák* *dílwil meɣ almán* *wáni?*
butter QST oil or herd of
butter, is it (vegetable) oil or of the animals?

b) *ni̱ɟf-kuná* *[katíbi-tan ʃammúʃ]* *meɣ maaṛá*
2s̱IMPERF-find coin-PL five or ten
you earn five or ten coins.

In addition some speakers use *mádaɣ*, another disjunctive particle taken over from Tamasheq.

(63)   *a꞊zz-ə́zrəg   ay꞊n t-á-ŋgud*
            3s꞊CAUS-go.water   3s꞊GEN F-SG-girl
            a-ɣázar   máday   baŋgú
            SG-pond   or   well
            She sends her daughter to the pond or to the well for water.

Yet another particle, *wala*, is sometimes used as a disjunctive device. This particle is originally from Arabic. In Tadaksahak texts, *wala* is relatively infrequent as a disjunctive particle for noun phrases. It is more commonly used in phrases translatable as '(not) even' or 'without'.

(64)   *a꞊sə-húuru   t-ə-kuṛúkaḍ   na   ayonda   no*
            3s꞊NEG.IMPERF-enter F-PL-shame   OPP DET.PL   there
            i-bélbad   wán-en   wal(a) i꞊n   i-sə́stən-an
            PL-plastic.bag of-PL   or   3p꞊GEN   PL-question-PL
            wal(a)   i꞊n   almuʃáqa-tan
            or   3p꞊GEN   matter-PL
            he shouldn't begin with these shameful things of the condoms, or their questions, or their matters.

In Songhay of Gao and Timbuktu this is the only disjunctive particle available and it exists also in Tamasheq.

4.2   *Uses of MAN morphemes*

The following sections describe the uses of the Mood-Aspect-Negation (MAN) morphemes. The shapes and basic meanings are given in 3.1.4.2. All MAN morphemes are mutually exclusive, i.e. they cannot be combined. They are prefixed to the verb stem and are themselves preceded by a subject clitic.

Different from Mainstream Songhay languages where the subjunctive has a unique form for negation, Tadaksahak has only two forms in the negative. The negative perfective is opposed to the negative imperfective, that is also used in the negation of subjunctive and future clauses. An opposition of 'terminated' and 'not (yet) terminated' seems to be the distinction. Only from the context can it be decided whether the positive correlate would have a subjunctive, an imperfective or future MAN morpheme.

4.2.1 Aspect: Perfective vs. Imperfective

The basic aspectual opposition is between perfective (unmarked) and imperfective IMPERF (*b- / f- / bə-*).

The imperfective aspect is used to convey habitual events (65), statements about general knowledge (66), and simultaneity of an event with a temporal reference point. When the reference point is the moment of utterance, the imperfective is used to indicate present time (67). In past tense narratives, the imperfective is used to express simultaneity to the (past) time reference set by the main event (e.g. "he was reading when she entered") (68).

(65) *aɣa꞊bb-ə́gməm.*
      1s꞊IMPERF-chew
      I (habitually) chew (tobacco).

(66) *a-rgán   a꞊b-ŋá   bor-én.*
      SG-camel   3s꞊IMPERF-eat   person-PL
      an/any adult male camel bites people.

(67) *bora   fóod(a)   a꞊b-guŋg(ú)   i-múṇas akkóz.*
      person   one   3s꞊IMPERF-lead   PL-camels four
      (only) one person leads four camels (while we talk).

(68) *a-ɣárɣar   a꞊jjéw   bor-én*
      SG-bare.plain   3s꞊help   person-PL
      s(a) i꞊b-wí   éeqad.
      when 3p꞊IMPERF-kill   bush.fire
      the barren plain helped the people when they were putting out the bush fire.

The imperfective is obligatory with a subgroup of adjectival verbs that indicate durable quality. This group includes all color verbs and qualities of fur.

(69) a) *aɣa꞊n   hinciní   a꞊f-kooráy.*
          1s꞊GEN   goat   3s꞊IMPERF-be.white
          my goat is white.

b)   *a-zóolaɣ*   *a꞊b-ʃaɣár.*
SG-male.goat   3s꞊IMPERF-have.small.white.spots
(the) male goat has small white spots.

Some perception verbs ('hear' 'see') can take a complement in the IMPERF (4.3.10.2).

The perfective is used with foregrounded, simple sequential events in narratives (70). In the speech situation it indicates that the event is closed (71).

(70)   *U.*   *a꞊ffúur-a*
          pro.name   3s꞊throw-3s
          ay꞊n   *kəmbərí*   *a꞊nə-yáʕad*   *áa꞊ka*
          3s꞊GEN   spear   3s꞊NEG.PERF-go.straight   3S꞊loc
          a꞊dd(á)   *áa꞊k(a)*   *á-triʃ*   *ceen-án*
          3s꞊make   3s꞊LOC   SG-wound   be.small-ADJZR
          U. threw it, his spear did not reach it (lion) straight, it made it a small wound.

(71)   *ni꞊zzáy*   *bitígi ka.*
          2s꞊steal   shop LOC
          you have stolen from the shop.

4.2.2   *Mood: Indicative vs. Subjunctive* m-

Subjunctive mood is semantically connected with intention, desire, planned events, i.e. with events which are not yet realized. It is not firmly attached to a time frame. It is often found in (subordinate) purpose clauses (see 4.8.2.1) and hypothetical acts as described in instructions (72). The subjunctive is used in orders in reported speech (73) and in order sequences (4.2.5).

(72)   *ni꞊m-diní*   *t-ə́-bzaz*   *ni꞊m-d(á)*
          2s꞊SUBJ-take   F-PL-seed.kind   2s꞊SUBJ-put
          íi꞊ka   *ary-én*   *ni꞊m-ʒí-lliʒit꞊i*
          3p꞊LOC   water-PL   2s꞊SUBJ-CAUS-clean꞊3p
          ni꞊m-káw-kat   *íi꞊ka*   *tond-én.*
          2s꞊SUBJ-take.out-VEN   3p꞊LOC   pebble-PL
          you take the seeds, put them in water, clean them (by stirring the water) (and) take the pebbles out (from them).

The following sequence shows first a subjunctive encoding an order (bring) and then a purpose clause (may do).

(73)   *wiji   hé   faṛúur-an*
        is.not thing be.important-ADJZR
        maʃʃín   ni꞊m-záw   aɣáy t-áa-har-t   ən
        but   2s꞊SUBJ-bring   1s   F-SG-lion-F.SG   GEN
        huuwá   aɣa꞊m-d(á)-an   áa꞊k(a)   alqurán
        milk   1s꞊SUBJ-do-ALL   3s꞊LOC   Koran
        ní꞊n   aaru sé.
        2s꞊GEN   man DAT
        (Marabout said:) this is not difficult but bring me the milk
        of a lioness so that I may do a spell for your husband in it.

The following instance has two possible readings: a second order or a
purpose clause.

(74)   *səkélələf   ní꞊nn   aarú ni꞊mm-éħkəm   áa꞊ka!*
        caress   2s꞊GEN   man   2s꞊SUBJ-reign   3s꞊LOC
        caress your husband (and you will/may) reign over him!

Blessings and good wishes for the future are also expressed with the
subjunctive.

(75) a) *Məssíinaɣ   a꞊mm-érəz   ana*
        God   3s꞊SUBJ-reward   2s.DAT
        may God reward you.

     b) *a꞊m-sá-kkabar   ándi se.*
        3s꞊SUBJ-CAUS-succeed   2p   DAT
        may He make you(pl) succeed (in your project).

Some story tellers mark the peak in a narrative with subjunctive. This
can be observed in the Text 1 (lines 80-83) in Appendix I.

4.2.3 Future *tə-*

The future is used with events that follow the reference time. This is
often the moment of speaking, but sometimes displaced into the past
as in English expressed as 'would', 'was going to'. An instance of this
is found in narratives, where habitual behavior is marked with FUT.

In answers to questions about events not yet realized, in a short or long time span, the future is normal.

(76) a)   *aɣ꞊tə-kó   tə́ffak*
          1s꞊FUT-leave tomorrow
          I will leave tomorrow.

     b)   *a꞊tə-yée-kat   ɣáarat   ka.*
          3꞊FUT-return-VEN   season.kind LOC
          he will return in harvest season.

Habitual is marked with future in narratives, but the imperfective is used in habituals otherwise.

(77)   *íttill(a)   alfájir   a꞊tə-sə́kkədi*
        each   morning   3s꞊FUT-gather.food
        Every morning she (mother Hyena) would gather food.

        a꞊tə-sə́kkədi   har   hé   (a)ɣo a꞊tə-kuná-kat
        3s꞊FUT-gather.food   until thing DET   3s꞊FUT-find-VEN
        She gathered food and what she found

        a꞊tə-záw-kaat꞊a
        3s꞊FUT-bring-VEN꞊3s
        she brought it

        a꞊m-fúr-an   íi꞊se   n   i
        3s꞊SUBJ-throw-ALL 3p꞊DAT   SEP   3p
        (in order) to throw it to them (in the hole).

The future marker is very frequent in subordinate clauses after verbs that can take the complementizer *sa* COMP, indicating that the intended action is not yet terminated. Songhay of Gao uses SUBJ for this kind of construction (Heath 1999b:325ff).

(78)   *aɣa꞊bbáaɣa   s(a) aɣ꞊tə-didá.*
        1s꞊want   COMP 1s꞊FUT-walk
        I want to go.

The following example shows the subordinate clause after the COMP *sa* with the FUT marker. As the whole sequence is part of a series of instructions the following clauses are in SUBJ mood.

(79)   *hé (a)d꞊dúuwa*   *sa*
         thing 3s꞊be.better COMP
         (ə)n꞊tə-hímay   *ní꞊n*   *kambá*
         2s꞊FUT-wash   2s꞊GEN   hand
         ni꞊m-ʒə́rrəʒəm   *ni꞊n*   *míya,*
         2s꞊SUBJ-rinse   2s꞊GEN   mouth
         t-izzár-t   *ni꞊m-sənt(á)*   *a-múnsu.*
         before   2s꞊SUBJ-begin   SG-meal
         it is better that you wash your hand (and) rinse your
         mouth before you begin to eat

The apodosis of many conditional clauses is marked with FUT.

(80) a) *əs-kábahar*   *árat-an*   *i꞊yyíli alfájir*
          maybe-when   herd-PL   3p꞊leave   morning

          a꞊tə-t-élem.
          3s꞊FUT-PASS-open
          when the herds left in the morning, it (gate) was opened.

      b) *əs-káhar* *ni꞊bb-ə́fṛəd* *í-ʃʃib-an*   *á-ɣaatir*
          maybe-when 2s-IMPERF-broom PL-grain.kind-PL   SG-riverbed

          ka   *t-á-blaq-q*   *a꞊tə-yírti-kat*   *ənd(a)꞊í.*
          LOC   F-SG-dust-F.SG   3s꞊FUT-mix-VEN   with꞊3p
          when you sweep grains together in a riverbed, dust gets
          mixed with them.

4.2.4 *Negation: perfective* nə- *and elsewhere* sə-

Positive perfective events are negated with the negative perfective.

(81) a) *a꞊nə-kun(á)*   *ay꞊n*   *á-zṛəf.*
          3s꞊NEG.PERF-find   3s꞊GEN   SG-silver
          he didn't find his money.

      b) *hawú a꞊bbán*   *a꞊nə-yíkfəṛ*
          cow 3s꞊be.soft 3s꞊NEG.PERF-be.wild
          cows are docile, they are not wild.

All other negated events are marked with *sə-* NEG.IMPERF.

(82) a)   *aɣ=sə-báay=a*
            1s=NEG.IMPERF-know=3s
            I don't know it.

      b)   *alfájir   a=sə́-kas   zaɣrí n   a-mənóokal.*
            morning   3s=NEG.IMPERF-be day   GEN   SG-king
            morning is not a day's ruler.

      c)   *ar=sə-dáy-kat   a-mánana báar(a)   ary-én.*
            1p=NEG.IMPERF-deal-VEN   SG-fish   be.in   water-PL
            we don't buy a pig in a poke (Lit: a fish that is in the
            water).

      d)   *a-ɣárɣar   a=sə-ss-ə́gməḍ.*
            SG-dry.plain 3s=NEG.IMPERF-CAUS-sprout
            a dry plain does not sprout (greenery).

The following negation is found in a purpose clause.

(83) *yírzəm   a-gádod   sallánda*
      attach   SG-old.water.bag   carefully
      ay=n   áɣr-an   i=sə-kós.
      3s=GEN   rope-PL   3p=NEG.IMPERF-cut
      attach the old water bag carefully so as not to cut its
      ropes.

Prohibitives show a remarkable mix of *sə-* with the imperative
markers (see below 4.2.5.3).

A number of particles are used together with negation on the verb
and when a 'negating' verb occurs. Find the discussion and examples
under 4.6.

4.2.5 Imperatives

Orders are normally marked by using the imperative form. One may
note that similar functions can be covered by the subjunctive; in
reported speech, imperatives are systematically substituted by SUBJ.

The positive imperative for a single addressee is the verb stem
without any additional morpheme. In other cases, the imperative
marker *ba ~ wa* IMP is used. This is the case in plural imperatives,
where *ba ~ wa* IMP takes the place of the 2p clitic *andə-*. It is also the
case in prohibitives and in third person injunctions, where the order

may be addressed to one or more persons. Note that it is impossible to use the marker *ba ~ wa* in positive singular imperatives.

ba and *wa* may be dialectal variants. *ba* is more frequent in texts from Talatayt, the most northern part of the area, and *wa* is found in texts from around Menaka in the southern part of the region. Examples:

(84) a)   *tunú!*
           get.up
           get up! (singular addressee)

     b)   *ba   tunú*
           IMP   get.up
           get up! (plural addressee)

     c)   *n(a) aɣáy sa   n   a*
           give 1s   DAT SEP 3s
           give it to me!

     d)   *wa   n(á) íi=s(e)   i=n   karáy*
           IMP   give 3p=DAT   3p=GEN   ball
           give them their ball! (plural addressee)

Imperatives following each other are not grammatical with the exception of a few movement verbs (see below). Any second imperative in a following clause is marked with a second person subjunctive. A subjunctive will also allow a reading as purpose clause, i.e. 'in order to'. Consider the following two examples where this reading would result in the following translations: 'Give them to me (in order) to marry me.' and 'Go to that other (one) to make him rest.' For the first example (a) an interpretation as a purpose clause is not possible considering the course of the narrative before this exchange. For the second example no absolute indications are given to exclude a reading as a purpose clause.

(85) a)   *n(á) aɣáy se   n   i   ni=m-zaw   aɣáy.*
           give 1s   DAT SEP 3p   2s=SUBJ-marry   1s
           give them to me and marry me!

b) *kóy ná aɣo ni꞊m-s-ǝnf(u) áa꞊se*
   leave OPP DET 2s꞊SUBJ-CAUS-be.at.rest 3s꞊DAT
   go to that other (one) and make him rest (or: in order to make him rest)

Following a few movement verbs like *kóy* 'leave', *tunú* 'get up', *yéw* 'come' and *zurú* 'run', a second imperative form is allowed when no other than imperative marking constituents intervene.

(86) a) *zurú yíbǝ(t)-kaat꞊a*
       run   snatch-VEN꞊3s
       run and snatch it (to here)!

b) *ba   tunú   ba   nǝ́m-aŋɣ(a)ǝnda bǝkáw-yan*
   IMP get.up IMP RECI-kill   with jinn-PL
   get up (pl) and fight (pl) with the jinns!

Some verb roots only occur as imperatives:

(87)   Suppletive imperatives

imperative	gloss	inflected root
yéw!	come!	*kóy-kat*
ahún!	hold (it)!	*yíddǝr*
ǝ́ndǝ!	pass (it)!	*yíci*
ǝndén!	pass (it)!	*yíci*

The first imperative is from Tamasheq. The next form is connected to Songhay of Gao /hũũ!/ 'here, take!' *ǝ́ndǝ / ǝndén* could be related with *ǝnda* 'in the direction of'. *ǝ́ndǝ* is used in situations where the giver and taker are in close reach and need not move themselves to pass on the object in question. *ǝndén* expects the addressee to get up to get the item.

4.2.5.1   Injunction

Third person injunctions are given in the following examples. With a simple pronoun clitic present, the subjunctive mood is understood as an injunction (a). When a subject is present as a noun, the imperative particle precedes the noun that is followed by a verb inflected in the perfective (b). In this construction, *ba ~ wa* IMP may be followed by an NP in the singular or in the plural.

(88) a) *a꞊m-ko*   *ay꞊n*   *á-ʃʃaɣal*
       3s꞊SUBJ-leave   3s꞊GEN   SG-work
       that he leave for his work.

    b) *wa*   *báarar*   *a꞊húuru*   *húgu.*
       IMP   child   3s꞊enter   house
       that the child enter the house!

4.2.5.2   Hortative

It is possible to utter an order addressed to a number of people including the speaker, similar to 'let's go!' in English. In his grammar of Tamasheq, Heath describes a special morpheme for 'hortative' and an 'alternative 1Pl hortative construction' (Heath 2005:323). Tadaksahak has no particular hortative morpheme but it has a hortative construction that shows similar components as the alternative form in Tamasheq. An uninflected verb is followed by the 1p dative pronoun (DAT *se* is omitted when no pronominalized constituent follows). The IMP particle preceding the verb indicates the number of addressees without counting the speaker. With IMP, the addressees are more than one person, without it, a single person is addressed.

(89) a) *wa*   *kó-(a)n*   *áari (se*   *n*   *a)*
       IMP   leave-ALL   1p   (DAT   SEP   3s)
       let's go (to it)! (several persons + speaker)

    b) *ʃíikəl áari!*
       travel 1p
       let's travel! (one person + speaker)

4.2.5.3   Prohibitive

The prohibitive (negative imperative) is normally expressed with the *ba ~ wa* IMP particle followed by an inflected verb with NEG.IMPERF *sə-*. This construction is used for all kinds of orders, including hortatives.

The particle *ba ~ wa* is used with singular and plural person marking on the inflected verb.

Prohibitives

(90) a)   *ba*   *(ə)n꞊sə-hurrú*   *sa...*
      IMP   2S꞊NEG.IMPERF-look.for   COMP
      don't try to...

b)   *b(a)*   *a꞊sə-ʃíggid*   *sa...*
      IMP   3s꞊NEG.IMPERF-wait   COMP
      s/he may/should not wait that....

c)   *...w(a)*   *ar꞊sə-dá(꞊a)*   *zaróoda*
      IMP   1p꞊NEG.IMPERF-do(꞊3s)   today
      (the kind of returning we did yesterday), don't let us do it today!

d)   *w(a)*   *andə꞊sə́-gor*   *andə꞊f-c(i)*   *aɣáy*
      IMP   2p꞊NEG.IMPERF-must   2p꞊IMPERF-say   1s
      mán   *aɣ(o)*   *óoda.*
      name   DET   DEM.NEAR
      you should not say this name to me!

When a subject is present as a noun / NP, the imperative particle precedes.

(91) a)   *b(a)*   *aɣa꞊n t-a-ŋgud*   *a꞊sə-yíli*   *húgu ka*
      IMP   1S꞊GEN F-SG-girl   3s꞊NEG.IMPERF-leave   house LOC
      that my girl not leave the house!

b)   *w(a)*   *ágg áadəm*   *a꞊sə-dóos꞊i*
      IMP   son.of Adam   3s꞊NEG.IMPERF-touch꞊3p
      that nobody touches them!

c)   *ba*   *bárr-en*   *i꞊sə-húuru-kat*
      IMP   child-PL   3p꞊NEG.IMPERF-enter-VEN
      that the children not enter.

4.3   *Argument structure*

In the following sections verb types will be presented. We distinguish between 'unmarked complement' without any postposition, 'dative complement' with the dative marker *se* DAT, and 'adpositional complement' with the postpositions *ka, be, daw,* all with a locational meaning.

4.3.1 Intransitives

Underived intransitive verbs include a subgroup of motion verbs (examples under (92)), verbs of position (93) used as active verbs or in a descriptive way as stative verbs. Some experienced states like 'I am hungry' are expressed with stative verbs (94) while others are not, and need to be expressed as in 'thirst found me' (95). Many functions of the body are expressed with intransitive verbs (96).

(92) a)   *a=b-didá*   *[tárra ka].*
         3s=IMPERF-walk   bush   LOC
         he walks in the bush/deserted location

     b)   *a=mmə́ṭṭəkwi*   *[néeda   ka].*
         3s=move.on   here   LOC
         he moved on from here

     c)   *a=yyíʃif*   *[a-ɣázar   ka].*
         3s=swim   SG-pond   LOC
         he swam in the pond

(93) a)   *a=b-gorá*   *[gánda   ka].*
         3s=IMPERF-sit   ground   LOC
         he sits on the ground

     b)   *a=yyíniʃtaga[gánda   ka].*
         3s=lie.on.side   ground   LOC
         he lay on his side on the ground

     c)   *arw-én*   *i=b-zaɣáɣ.*
         man-PL   3p=IMPERF-lay.on.back
         (the) men are lying on their backs

(94) a)   *aɣa=bb-ə́glək.*
         1s=IMPERF-be.hungry
         I am hungry

     b)   *aɣa=yyidáẓ.*
         1s=be.tired
         I am tired

(95) a)   *fád   a꞊kkun(a)   aɣáy.*
        thirst 3s꞊find   1s
        I am thirsty

    b)   *t-í-ɣsas   i꞊kkun(a)   aɣáy.*
        F-PL-shiver 3p꞊find   1s
        I am shivering

(96) a)   *a꞊f-tíʃʃit.*
        3s꞊IMPERF-cough
        he coughs

    b)   *báarar   a꞊f-tínʒit.*
        child   3s꞊IMPERF-sneeze
        the/a child sneezes

    c)   *a꞊wwínʒir.*
        3s꞊bleed.nose
        she bled from the nose

4.3.2   Labile verbs

There are quite a number of verbs that can describe a state, but can also be used in an active sense of achieving the state described. These will be called labile verbs. There are about 150 verbs of this type in our corpus. The majority is of Songhay origin (listed under (99)) but there are also some verbs which have Tamasheq cognates (see (100)).

Labile verb of Songhay origin

(97) a)   *ay꞊n   t-a-rásway-t   a꞊bə-bíibi.*
        3s꞊GEN   F-SG-dress-F.SG   3s꞊IMPERF-be.black
        his/her dress is black.

    b)   *wayní   a꞊bə-bíibi   bor-én.*
        sun   3s꞊IMPERF-blacken person-PL
        the sun makes people black. (=gives people a dark tan)

Labile verb of Tamasheq origin

(98) a)   *farc-én   i꞊bb-ə́ssaɣ*
        donkey-PL   3p꞊IMPERF-tie.two
        the donkeys are tied together.

    b)   *a꞊bb-ə́ssaɣ   áy꞊n   farc-én.*
        3s꞊IMPERF-tie.two 3s꞊GEN   donkey-PL
        she ties her donkeys together.

This double valency of basic verbs seems to be quite different from Mainstream Songhay. Many of the verbs that need a causative morpheme in Mainstream Songhay have both an intransitive and a transitive use in Tadaksahak – actually most descriptive verbs of Songhay origin have this behavior (see 3.1.3.1 and list in Appendix II).

(99)   *Songhay cognates*

verb	intransitive gloss	transitive gloss
kukú	to be long	to make long
babó	to be many	to increase
ʒén	to be old	to make old
ceená	to be small	to make small
bán	to be soft	to soften
fér	to be opened	to open
dudú	to flow	to pour
hínjin	to be repaired	to repair
kunkún	to be rolled up (mat)	to roll up (mat)

(100)   *Tamasheq cognates*

verb	intransitive gloss	transitive gloss
yídraɣ	to be decorated with metal	to decorate with metal
yíɣʃid	to be out of use / destroyed	to destroy
yíɣfəl	to be locked	to lock
yíləm	to be open	to open
yílkəḍ	to be braided	to braid

yíssaɣ	to be tied two together	to tie two together
yíṣbəṛ	to be spread out (to dry)	to spread out (to dry)
díydi	to be level	to level sth.
ḍə́ṇay	to be filled	to fill (narrow opening)
yiská	to be combed	to comb
yiɣmá	to be colored (leather)	to color (leather)
yiḷzá	to be shaved	to shave
yinkáḍ	to be circumcised	to circumcise
jeejí	to hang on side	to attach (to side)

4.3.3 Transitive only (underived)

The group of transitive only verbs includes verbs of production ('make', but not 'repair' or 'arrange'), and verbs of physical impact ('hit', but not 'cut' or 'break'). The following list gives examples of transitive verbs that have no intransitive use. The etymology is given using Timbuktu Songhay (S) and Tuareg tawəlləmmət (T) examples.

(101)   *Transitive only verbs*

verb	gloss	etymology
diní	to take sth.	S: din
kár	to hit sb/sth.	S: kar
gôn	to swallow sth.	S: goon
ḍarór	to need sth.	T: dărăr
déeraw	to have sth. in common	T: ədrəw
ḍə́ləm	to treat sb. wrongly / accuse unjustly	T: əḍləm
fəlás	to believe sth.	T: əfləs
hóorat	to follow sb. (by his footprints)	
darjéd	to chase after sth./sb.	

A number of movement and location verbs take a direct object to express the location, i.e., a semantically locational element that is not marked with the appropriate postposition *ka* 'to, in, from'. Examples:

(102) a) *a=húuru   hugu.*
          3s=enter   house
          s/he entered the house.

      b) *a=ṭṭaaw=a*
          3s=reach=3s
          s/he reached it (town).

The direct object of such verbs need not be a location like 'market' or 'town'. Other semantically less locative complements, can be found, e.g. 'cows', 'name-giving ceremony', 'work' and 'spirit'.

(103)   *Movement verbs with direct object complement.*

syntax	gloss	Etymology
kóy X	go to X	S
húuru X	enter X	S
hunú X	depart from X	S
ṣót X	jump over X	S
ṭaw X	reach X	S
haŋgá X	pass by/over X	S
yéd X	return to X	S
yímmər X	pass by X	T
yífṭən X	climb X	T
yíṣkən X	stretch up in X	T
ṭə́rṭər X	go along X	T
hə́ll-ət X	climb X	T

The verbs listed below are not movement verbs, yet all have 'location' as part of their semantics, they all designate 'to be somewhere'.

(104)　　　*Locational verbs with a direct object complement*

syntax	gloss	Etymology
báara X	be in X	S
keedí X	be up on X	S
yíŋgər X	be behind X	T
yígdəl X	be under X	T
yízday X	live in X	T

With other verbs, movement and location are expressed by an adpositional complement, e.g. *X zurú [Y ka]* 'X ran in Y' and *X keení [Y ka]* 'X lie on Y'.

In Mainstream Songhay movement verbs always have a post-positional complement marked with the locative postposition /la ~ ra/.

In his grammar of Tamasheq, Heath mentions a number of movement and location verbs ('go to', 'leave, go from', 'be on sth.', 'be in', 'exist', 'lose') that take direct objects. Some of them correspond with verbs also found with this feature in Tadaksahak. Apparently, for this syntactical characteristic, Tadaksahak copies Tamasheq.

4.3.3.1　　*Verbs taking a verbal noun complement*

A large number of verbs take a verbal noun as their complement. Verbs of duration as well as verbs of cognition, manipulation and ability are found in this group. An additional oblique complement can be present. Verbal nouns easily take possessors to refer to the referent on which the action is to be performed. Consider the examples.

'begin' *s-əntá*

(105)　　*əs-káhar　　　a=ss-ənt(á)　　　áa=ka　　　nín...*
　　　　maybe-when　　3s=CAUS-begin.BND 3s=LOC　　drink.VN
　　　　when he (lion) began to drink from it...

'enter into' *huurú* is interpreted as 'begin' when followed by an abstract noun.

(106)   *a͎húur(u)*   *á-ʃʃaɣal.*
           3s͎go.into   SG-work
           he began to work.

'be at the point of' *yabúk*

(107)   *əs-kár*   *a͎yyabúk*   *arə͎n*   *kár...*
           maybe-when 3s͎be.at.point.of   1p͎GEN   hit.VN
           when he is at the point of hitting us....

So far only *yabúk* 'be at the point of (doing)' has been found with a verbal noun complement marked with dative. Compare the examples below with (107) above, where the same matrix verb has a verbal noun complement from an action verb and then does not mark it with dative *se*.

(108) a)   *i͎yyabúk*   *bun*   *sé.*
           3p͎be.at.point.of   die.VN   DAT
           they were at the point of dying.

      b)   *a͎yyabúk*   *hay*   *sé.*
           3s͎be.at.point.of   give.birth.VN   DAT
           she (female camel) was at the point of giving birth.

'be close to' *mán*

(109)   *hawú*   *a͎mmán*   *háy*
           cow   3s͎be.close give.birth.VN
           the cow is close to giving birth.

'learn' *yílməd*

(110)   *a͎yyílməd*   *didá.*
           3s͎learn   walk.VN
           he learned to walk.

'be able to' *də́bət*

(111)   *a꞊ddə́bət*   *ay꞊n*   *gôn*
         3s꞊be.able   3s꞊GEN   swallow.VN
         he is able to swallow it.

'know' *báy*

(112) a)   *báarar*   *a꞊sə-báy*   *á-bbaṣ*   *ceddí.*
           child   3s꞊NEG.IMPERF-know   SG-chew   yet
           the child cannot yet chew.

   b)   *a꞊bbáy*   *t-óo-ruf-t*   *ən*   *z-ə́zəl.*
         3s꞊know   F-SG-car-F.SG   GEN   CAUS-run.BND.VN
         she knows how to drive a car / she can drive a car.

'want, love' *báaɣa*

The verb 'want' *báaɣa* has a different stem in the negation, *kúl*. It is only attested with NEG.IMPERF. The verbal noun can be fronted for focus just as any other nominal complement of a verb.

(113) a)   *didá*   *aɣa꞊bbáaɣa.*
           walk.VN   1s꞊want
           leaving [focus] is what I want.

   b)   *aɣ꞊sə-kúl*   *ay꞊n*   *m-ə́ʃʃaq-at*
         1s꞊NEG.IMPERF-want   3s꞊GEN   RECI-disturb.VN
         I don't want to disturb him.

'look for, seek, want' *hurrú*

(114)   *aɣáy*   *dabés*   *aɣa꞊b-hurrú*
         1s.EMP   raise.VN   1s꞊IMPERF-look.for
         as for me, it's an increase (in price) that I seek.

'regret' *m-ə́grəz*

(115)   *aɣa꞊mm-ə́grəz*   *didá.*
         1s꞊RECI-regret   walk.VN
         I regret leaving.

'intend' *yíɣəl*

The verb 'have the intention to (do)' *yíɣəl* is always used when the action didn't materialize. An explanatory second clause is expected beginning with 'but'.

(116) *aɣa=ɣyíɣəl*   *Mə́nəka*   *n*   *kó*   *bí*
     1s=intend   name.LOC   GEN go.VN   yesterday
     məʃʃín   *cinjí* *a=ggang(á) aɣáy didá.*
     but   rain 3s=hinder 1s   walk.VN
     I intended to go to Menaka yesterday but rain kept me
     from leaving.

'hinder' *gangá*

This verb of manipulation takes a dative complement for the entity that is manipulated. In example (116) above the first person pronoun is not marked for the dative because a nominal complement is present (3.2.7.11.2.1).

'try' *yírəm*

In the example below the verbal noun 'walking' *didá* is modified by the possessor construction 'of vanity' to express 'show off with nice clothes'.

(117) *kəlá a=nə-yírəm*   *did(á) i-bárag-an wáni...*
     ever 3s=NEG.PERF-try   walk.VN PL-vanity-PL   of
     he had never tried to show off with his clothes...

'refuse' *wánjin*

This verb of manipulation marks the person manipulated with the dative (c).

(118) a) *a=wwánjin* *ŋá*
       3s=refuse   eat.VN
       he refused to eat.

    b) *a=wwánjin* *ay=n*   *diní.*
       3s=refuse   3s=GEN   take.VN
       she refused to take it.

    c) *a=wwánjin* *áa=se*   *didá*
       3s=refuse   3s=DAT   walk.VN
       he didn't allow him (= refused him) to leave.

'ought to' *máy-ənda* '

This verb is composed of 'have', *máy*, and the fused preposition *ənda* 'with'. A nominal complement as well as a *sa* clause are possible. It is also found in the negative 'ought not to'.

(119) a) *nín*   *nə-máy-ənd(a)*   *ay꞊n*   *t-á-ggas-t*
         2s.EMP   FOC-have-with   3s꞊GEN F-SG-take.care-F.SG
         it's you who ought to take care of it (land).

     b) *surgóy*   *a꞊sə́-may-ənda*
         woman   3s꞊NEG.IMPERF-have-with

         s(a)   *a꞊tə-d(á)*   *ay꞊n*   *áaru sé*   *hé*   *yibrár-an.*
         COMP 3s꞊FUT-do   3s꞊GEN   man DAT   thing be.bad-ADJZR
         a woman ought not to do anything bad to her husband.

The verbal noun complements can be pronominalized for all verbs in the examples above.

Two verbs that intensify or qualify an action are found with this construction. The complement is the verbal noun of the action or of the state qualified. These verbal noun complements cannot be pronominalized.

'do/be very much' *s-ínnihil*

The first examples (a-c) illustrate *s-ínnihil* with stative verbs while the next two (d-e) are with action verbs and (f) shows a construction that is the intensified version of *álham a-húur(u) aɣáy* (anger 3s꞊enter.into 1s) 'I am angry.'

Examples with *s-ínnihil* 'do/be very much'

(120) a) *t-a-záɣan-t*   *s-ínnihil*   *kukú*
         F-SG-mast-F.SG   CAUS-be.much   be.long.VN
         a very long mast (Lit: a mast that is very long)

     b) *i꞊b-s-ínnihil*   *t-úu-la-t.*
         3p꞊IMPERF-CAUS-be.much F-SG-look.alike-F.SG
         they look very much alike.

     c) *i꞊nə-s-ínnihil*   *yáy*   *ceddí*
         3p꞊NEG.PERF-CAUS-do.much   be.cool.VN   yet
         it (water) is not very cool yet.

     d) *aɣa꞊ss-ínnihil*   *áa꞊se*   *a-búbbugu*
         1s꞊CAUS-do.much 3s꞊DAT   SG-burn.off
         I burned it (sheep head's hair) off very well.

e) *bárr-en* *andə=m-s-ínnihil* *t-á-nzi-t*
    child-PL   2p=SUBJ-CAUS-do.much   F-SG-leave.early-F.SG
    tə́ffak   *á-ʃʃaɣal* *se*
    tomorrow SG-work   DAT
    children, you should leave very early tomorrow morning
    for work.

f) *álham* *a=ss-ínnihil* *aɣáy* *húuru.*
    anger   3s=CAUS-be.much   1s   enter.VN
    I was very angry.

'do/be very much' *hínjin*

Among the following examples, remark that (d) intensifies the idiom
hé (a)=kkun(á)=a (thing 3s=find=3s) 'he is ill.' Example (f) exposes
some additional syntactic intricacies. The verb *z-ə́lləzləz*, 'shake', is
used in a nominal form complementing *hínjin*. The reflexive phrase
takes the slot of the indirect object that is marked with DAT.

(121) a) *har* *intáynawt* *a=hínjin* *t-ée-wan-t.*
          until   jackal   3s=be.much   F-SG-be.fed-F.SG
          until Jackal had eaten very well.

b) *har* *a=hínjin* *áa=k(a)* *a-ṇágaḍ*
    until 3s=be.much 3s=LOC   SG-be.turbaned
    until he was very well turbaned in it (kind of turban).

c) *ay=n*   *a-mə́sli* *a=hínjin* *áa=se*   *gə́rraẓ-at.*
    3s-GEN   SG-voice   3s=do.much   3s=DAT   please.VN
    his voice pleased her very much.

d) *zamá* *éelaw*   *hé* *(a)=hínjin* *áa=se* *kuná...*
    after   elephant thing 3s=do.much   3s=DAT   find.VN
    after Elephant is very ill...

e) *s(a)*   *aɣa=hínjin* *báaɣa.*
    COMP   1s=do.much   want.VN
    that I want very much.

f)   *a-nyíl*   *a꞊tə-hínjin*   *ay꞊n*   *gá*   *se*
     SG-ostrich   3s$_i$꞊FUT-do.much   3s$_i$꞊GEN   self   DAT
     a-z-ələ́zləz   *t-a-ʒáyin-t*   *be*
     SG-CAUS-shake   F-SG-jujube.tree-F.SG   LOC
     Ostrich was shaking himself very much up in the jujube
     tree.

An alternative to this intensification is the adverb *húllən* 'much' that
can be added to the verbal word.

4.3.4   Verbs with obligatory adpositional complement

A small number of verbs obligatorily take an adpositional complement
that expresses a location.

An example of a verb that always takes a complement with a locative
postposition is 'to look down on'.

(122)   *a꞊b-ʃúgu*   *ay꞊n*   *a-kátab*   *ka.*
        3s꞊IMPERF-look.down   3s꞊GEN   SG-writing   LOC
        he looks down on his writing.

Some verbs take a different meaning with an adpositional
complement.

(123)   Verbs with different interpretation

verb	gloss	verb + LOC	gloss
káy	to stop	*káy X ka*	to trample
		káy X be	to withhold
fúl-ət	to reinforce (well)	*fúl-ət X be*	to support X (person)

4.3.5   Verbs with dative complement (se)

Some verbs have an obligatory dative complement without an
unmarked complement. Some examples are:

(124)   Verbs with dative complement

syntax	gloss
yilkám X se	follow sb.
yímmaɣ X se	search for sth.
góoday X se	thank (God)

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mo X se	hear sth.
ʃ-íʃʃim X se	listen to sth.
ʃ-íggid X se	wait for sb./sth.

Some verbs can be used with and without a dative complement. This may considerably change their interpretation.

(125)   *Verb with different interpretation*

verb	gloss	syntax	gloss
yírəz	be let down	*yírəz X se*	(God) bless X

Verb stems that contain a causative mark pronominalized human causees as a dative complement.

(126) a)   *a=ʃʃí-hiʃʃil*   *áa=se hawru*   *n*   *bén*
         3s=CAUS-oblige   3s=DAT meal   GEN   finish.VN
         she made him finish the meal.

   b)   *a=ss-ə́gmi*   *áa=s(e)*   *a-mámel*
         3s=CAUS-look.for.BND   3s=DAT   SG-burning.coal
         he sent him for a burning coal.

Examples of non-human pronominalized complements and other details on the causative construction are found under 4.3.7.

4.3.6 Verbs with instrumental-comitative complement (ənda)

The instrumental-comitative preposition *ənda* appears with two semantically different kinds of verbs. There is one class of verbs that has either an instrumental-comitative complement or is used without a complement. In the latter case, these verbs are interpreted as reciprocals.

(127)   *Reciprocal verbs*

verb	gloss	syntax	gloss

haŋgá	pass	*haŋg(á) ənda X*	accompany X
sáawa	look alike	*sáaw(a) ənda X*	look like X
m-ə́qqəs	meet	*m-ə́qqəs ənda X*	meet X
s-əgdá	be equal	*s-əgd(á) ənda X*	equal X
ẓəláy	be different	*ẓəláy ənda X*	be different from X

As a complement of certain movement verbs, *ənda* serves as a directional preposition and can then be translated with 'in the direction of'. (See 3.2.7.8)

A special case is the verb *dá* 'make' with an *ənda*-complement. The direct object is maintained and the complement encodes the outcome of the action: 'to make sb./sth. towards/into something else' is expressed as *dá X (ə)nda Y* 'make X into Y'. This may be semantically connected to the directional meaning of *ənda*.

4.3.7 Verbs with two complements

Some verbs can take both an unmarked and a dative complement. The list below shows the syntax of such verbs. When both complements are present, whether nominal or pronominal, one is marked with *se* as the dative complement and one is unmarked. The verbs are underived with the exception of 'show' that has a causative prefix. The two examples below show that the complement order is not rigidly fixed when the complements are nominal.

(128) a) *a꞊nn(á)   ay꞊n   t-ə-sə́sira   alfáqi   se.*
3s꞊give   3s-GEN   F-PL-key   teacher   DAT
she gave its keys (of the crate) to the teacher.

b) *i-ḍúulin   i꞊nná   t-á-ŋgud   ən   naná   se*
PL-in.law   3p꞊give   F-SG-girl   GEN   mother   DAT
i-gíitan.
PL-gift.kind
the in-law family gave skins to the mother of the bride.

(129)   Verbs with two complements

verb	gloss	syntax	gloss
ná	give	*na X [Y se]*	give X to Y
záw	take	*zaw X [Y se]*	take X to Y

hár	tell	*har X [Y se]*	tell X to Y
dá	do	*da X [Y se]*	do X to Y
cí	say	*ci [Y se] "..."*	say to Y "..."
gaŋgá	keep from	*gaŋgá X [Y se]*	keep X from Y
s-ə́kən	show	*s-ə́kən X [Y se]*	show X to Y

Verbs with a causative often have two complements, one of which is marked by the dative, i.e., the human causee, the entity with an assumed will, e.g., *a꞊b-sə́-mməllət Fáti s(e) ay꞊n báarar*. (3s꞊IMPERF-CAUS-kiss F. DAT 3s꞊GEN child) 'He makes Fati kiss her baby.'.

In a sentence like 'She made the taxi bring the children to her aunt.' the taxi has no will and can therefore not be marked with the dative. Animals fall in the same category. They are not considered to have a will of their own. Above sentence is rendered as *a꞊ss-əglá barrén táksi ka ənd(a) áy꞊n nana céena*. (3s꞊CAUS-go.BND child-PL taxi LOC with 3s꞊GEN mother small) 'She sent the children in a taxi to her aunt.'

4.3.8 Verbs taking two unmarked complements

This group of verbs consists of stems with a causative morpheme. Semantically they are all movement related. They can have two unmarked complements, one that expresses a location and one a causee/item that is acted upon. In a typical causative construction this role is marked as a dative complement, see (126) and examples above. The complements are both unmarked as long as they are present in nominal form. When one complement is pronominalized, the appropriate postposition appears.

When no humans are involved, the pronominalized location gets marked as the dative (benefactor) and the causee takes the place of an unmarked patient.

(130) a) *a=ṣ̣ṣ-ə́wər*   *ée-ɣar*   *i-kád-en*
       3s=CAUS-put.on.BND   SG-pot   PL-fireplace-PL
       she put the pot on the fireplace.

     b) *a=ṣ̣ṣ-ə́wər*   *íi=s(e)*   *ée-ɣar*
       3s=CAUS-put.on.BND   3p=DAT   SG-pot
       she put the pot on it.

     c) *a=ṣ̣ṣ-ə́wər=a*   *i-kád-en*
       3s=CAUS-put.on.BND=3s PL-fireplace-PL
       she put it on the fireplace.

(131) a) *a=b-s-ə́ləl*   *kuur-én*   *gánda*
       3s=IMPERF-CAUS-follow   skin-PL   earth
       he puts a fine coat of earth on the skins. (Lit: he makes the earth follow the skins.)

     b) *a=b-s-ə́ləl*   *íi=se*   *gánda*
       3s=IMPERF-CAUS-follow   3p=DAT   earth
       he puts a fine coat of earth on them.

     c) *a=b-s-ə́ləl=a*   *kuur-én*
       3s=IMPERF-CAUS-follow=3s skin-PL
       he puts it on the skins.

     d) *a=b-s-ə́ləl*   *íi=se*   *n*   *a*
       3s=IMPERF-CAUS-follow   3p=DAT   SEP   3s
       he puts it on them.

When humans are involved the location remains unmarked and the pronominalized human causee is marked with the dative. (see above).

(132) a) *a꞊ss-ə́wəṇ*   *bárr-en*   *farká*
3s꞊CAUS-mount.BND   child-PL   donkey
she made the children mount the donkey.

   b) *a꞊ss-ə́wəṇ*   *íi꞊se*   *farká*
3s꞊CAUS-mount.BND   3p꞊DAT   donkey
she made them mount the donkey.

   c) *a꞊ss-ə́wəṇ꞊a*   *bárr-en*
3s꞊CAUS-mount.BND   child-PL
she made the children mount it.

   d) *a꞊ss-ə́wəṇ*   *íi꞊se*   *n*   *a*
3s꞊CAUS-mount.BND   3p꞊DAT   SEP   3S
she made them mount it.

(133)   *Verbs with two unmarked nominal complements*
   ṣ-ə́wər   to put on
   s-ə́ləl   to put finely on
   s-ə́wəṇ   to make mount
   ʃ-ínək   to make mount
   s-íci   to make go past
   ṣ-ə́ṛəṣ   to make ford
   s-ə́ss-əgəd   to make jump over
   s-ə́ŋgər   to put behind
   sá-nnahal   to make reach straight

In contrast, the verb 'make enter' marks the location with the appropriate adposition *ka*.

(134) *aɣa=zz-úguz   a-ʃígnaw   a-ná-ẓmay ən   fún   ka.*
       1s=CAUS-enter.BND SG-thread   SG-ACT-sew GEN   hole   LOC
       I threaded the thread in the hole of the needle.

The verb 'to prefer' *yasáf* has no causative marker but behaves like the verbs described above when it occurs with nominal complements. Two nouns follow the verb to express preference of the one item over the other. The item immediately following the verb is the preferred one while the second unmarked noun encodes the less liked item.

(135) *aɣa-yyasáf   fufú   t-aa-dás-t*
       1s-prefer   cold.VN   F-SG-mosquito-F.SG
       I prefer the cold (season) to mosquitoes (in hot season).

'prefer' can take a complement clause when preference of actions needs to be expressed (see (158))

4.3.9 Reflexive constructions

There is no particular reflexive pronoun but overt reflexives are expressed by a noun phrase with an expression for 'self'.

4.3.9.1 Reflexive constructions

Tadaksahak has a reflexive construction, using the noun *ga* (plural: *j-en*), which is only used in this construction, determined by a pronominal genitival construction.

(136) a) *a=háw   [ay=n   gá].*
          3s1=attach   3s1=GEN   self
          s/he attached her/himself.

     b) *i=háw   [i=n   j-én].*
          3p1=attach   3p1=GEN   self-PL
          they attached themselves.

     c) *aɣa=háw   [aɣa=n   gá] [(ə)nda   karfú].*
          1s=attach   1s=GEN   self with   rope
          I attached myself with a rope.

The reflexive noun phrase is attested with postpositions, particularly with *se* DAT 'for'

(137) a)   *a꞊mm-ə́gəz*   *ay꞊n*   *gá*   *se*
           3s_i꞊SUBJ-keep   3s_i꞊GEN   self   DAT

           wiji   *borá*   *fó*   *se*
           is.not   person   IND   DAT
           may he look after (it [land]) for himself, not for someone else.

    b)   *ay꞊n*   *gá*   *se*   *a꞊kkúuḍ꞊a*
           3s_i꞊GEN   self   DAT   3s_i꞊tend.flock꞊3s
           it's for his own (benefit) he tends it (flock).

    c)   *ṭ-ə-kmát-in hiŋká andə꞊ddá   andə꞊n j-én*   *se*
           F-SG-harm-PL two 2p_i꞊do   2p_i꞊GEN self-PL   DAT
           it's two bad things you(pl) did to yourselves.

The reflexive construction is also found in genitive constructions. This is mainly used for underlining, rather than for an expression of reflexiveness.

(138) a)   *i꞊ddá* *i꞊n*   *j-én*   *ən*   *didá*
           3p꞊do 3p꞊GEN   self-PL   GEN   walk.VN
           they went about their own business.
           (lit: they did walking of their own.)

    b)   *i꞊kkun(á)* *i꞊n*   *j-én*   *ən*   *alístaɣlal*
           3p꞊find   3p꞊GEN   self-PL   GEN   freedom
           they got their own independence.

When the noun phrase with *ga* is preceded by the preposition *ənd(a)*, it emphasizes the noun it refers to.

Some examples.

(139) a)   *surgóy*   *ənd(a)*   *ay꞊n*   *gá*
           woman   with   3s꞊GEN   self

           a꞊húuru   *ássunduq adí*
           3s꞊enter   crate   ANA
           the woman herself entered in the crate.

b) *aɣá=n   babá   (ə)nd(a)   ay=n   gá*
   1s=GEN   father   with   3s=GEN   self
   a=sə-yíkti=a.
   3s=NEG.IMPERF-remember=3s
   my father himself does not remember it.
   = not even my father remembers it.

c) *..s(a) áari   (ə)nd(a)   arə=n   j-én*
   COMP 1p.EMP   with   1p=GEN   self-PL
   arə=m-káy....
   1p=SUBJ-stop
   ...that we ourselves, we stop...

d) *...t-órf-in   n   kó-(e)n   ənd(a) i=n   j-én*
   F-car-PL   GEN   owner-PL   with   3p=GEN   self-PL
   i=yyíl̩mən   áa=ka
   3p=guarantee   3s=LOC
   the car owners themselves guarantee it.

e) *...aɣáy   (ə)nd(a)   aɣa=n   gá   aɣa=yyahór*
   1s.EMP   with   1s=GEN   self   1s=be.worth
   t-a-ʃə́ŋgəl-t.
   F-SG-make.up-F.SG
   ...(but) really, I myself, I am worth (more than) makeup.

The word *ga* (glossed here as 'self') is a cognate of the KCH word for '(living) body, organism' /gaa/ (Heath 1998c:96). The construction is more akin to Tamasheq, where reflexives are formed with /iṃan/ 'soul, life' and the corresponding possessive suffix (Heath 2006:708), than to KCH, which has 3rd person reflexive pronouns (Heath 1999a:331ff.)

4.3.9.2   Reflexive verbs

Some verbs may denote a reflexive event when used without an overt direct object. A typical case is 'wash'.

(140) a) *t-á-ŋgud   a=hímay   tuw-yén.*
         F-SG-girl   3s=wash   eating.bowl-PL
         a/the girl washed the bowls.

b) *t-a-ŋgud   a=hímay.*
    F-SG-girl   3s=wash
    a/the girl washed herself.

Similar (but less commonly used in reflexive contexts) is 'burn'.

(141) a)   *danjí*   *a꞊kkurú-kuru*   *aɣáy.*
            charcoal   3s꞊burn-DUP   1s
            a/the charcoal burnt me.

    b)   *aɣa꞊kkurú-kuru.*
            3s꞊burn-DUP
            I burnt myself.

4.3.10 Verbs with a Clausal Complement

There are four basic strategies observed that can be treated as verbal complementation.

In this section the different strategies are summarized and characterized in a simple formula. The details are given in the subsequent sections.

Strategy I: Verbal noun complement

This is the most integrated way to complement a verb. There is no complementizer present, and the finite verb (V) is followed by a verbal noun. The verbal noun is identified by its shape. Syntactically this is a simple clause with nominal complement. This strategy is observed with a large number of verbs.

$$V + \text{Verbal Noun}$$

For details see 4.3.3.1 above.

Strategy II: subordinate clause in subjunctive mood

This strategy is only used by the verbs *cí* 'say' and *dís* 'let' The subject (S) of the complement taking verb (V) is co-referential with the subject of the complement clause. The MAN marker of the verb in the complement clause (Vcc) is typically restricted to SUBJUNCTIVE (*m-*).

$$_S V + {}_{\text{co-referential}} {}_S V^{cc}$$

The examples are in 4.3.10.1 below.

Strategy III: (in)direct object reference in subordinate clause with (im)perfective aspect

There is no complementizer but the direct object (DO) of the main clause is always the subject of the complement clause. Only IMPERFECTIVE and PERFECTIVE can be observed on the verb in the complement clause.

$$V_{DO} + {}_{DO.referential\text{-}S}V^{cc}$$

A subtype of this strategy involves a 3rd person subject in the main clause that is interpreted as 'impersonal'. There may or may not be a direct object. If one is present, the subject of the subordinate clause refers to it.

$$_{S:impersonal}V_{(DO)} + {}_{(DO.referential\text{-})S}V^{cc}$$

The examples are in 4.3.10.2 below.

Strategy IV: with complementizer sa

This strategy is widely used with many different types of verbs. It involves the complementizer (COMP) *sa* between the finite verb and the complement clause. The verb in the complement clause is typically marked with FUTURE. The subjects of the verbs may be co-referential or not. Most finite verbs that are observed with strategy IV can also be found with strategy I.

$$_{S}V\ COMP\ {}_{(co\text{-}referential)S}V^{cc}$$

A subtype of this strategy concerns verbs with a 3rd person subject in the main clause that is interpreted as 'impersonal'.

Find the examples in section 4.3.10.3

4.3.10.1 *Complement clauses with subjunctive*

There are two verbs that are regularly followed by a subjunctive complement clause. The verb *dís* 'let (alone)' allows for a direct object followed by a subjunctive clausal complement. The subject of the complement clause is coreferential with the direct object of the verb, e.g.

(142) a) *díis=a a=m-kó*
          let-$3s_1$ $3s_1$=SUBJ-leave
          let him leave!

b) *andə=tə-dís*   *aɣáy*
    2p=FUT-let   1s

   aɣa=m-d(á) ándi s(e) a-sə́stən   *fóoda*
    1s=SUBJ-do 2p   DAT   SG-ask   one
    will you (pl) allow me to ask you (pl) one question?

Another verb which may be followed by a subjunctive complement clause is the verb *ci* 'think, say'. When used with a dative complement this verb is translated as 'say' and is followed by a complement clause citing the speech act. Without a dative complement, it takes the more vague meaning of 'thinking'. In this construction it is often followed by a subjunctive clause with a coreferent subject, which expresses an intention. The verb then translates into English as 'want', e.g.

(143) a) *a=ccí*   *a=m-tén*
     3s=say   3s=SUBJ-arrive
     he wanted to come. (Lit: he$_1$ said he$_1$ would arrive)

   b) *a=ccí*   *a=m-haŋgá*   *t-a-bákar-t*   *ən*   *mó*
      3s=say   3s=SUBJ-go.over   F-SG-sheep-F.SG   GEN   face

      a=mm-əzzár   *áari.*
      3s=SUBJ-be.ahead   1p
      he wanted to go around in front of the sheep to be ahead of us.

   c) *a=ccí a=sə-bóy*   *t-ə-míʒar*   *ka.*
      3s=say 3s=NEG.IMPERF-move   F-PL-old.camp   LOC
      she didn't want to move from the old campsite.
      or: she said she will not move...

When the subjects are not co-referential, other MAN markers are allowed on the verb in the subordinate clause.

(144)   *a=ccí*   *a=b-sə́-ss-əɣr(a)=i.*
      3s$_1$=think   3s$_2$=IMPERF-CAUS-CAUS-learn=3p$_3$
      he$_1$ thought he$_2$ would teach them$_3$.

This sentence can also be interpreted as indirect speech and thus be translated 'he said he was teaching them'.

4.3.10.2   *Complement clauses where* PERF *and* IMPERF *are allowed*

There are a number of verbs that regularly take an imperfective or a perfective complement without any overt complementizer. In these constructions, complement clauses with an imperfective express simultaneity with the action in the matrix clause and that in the complement clause. The perfective appears in the complement clause when the action in the complement clause is already closed by the time the action of the matrix clause takes place.

'hear sth.' *mó (hé se)*

The pronominal complement of the verb 'hear' is always marked with a dative.

(145) a)   *aɣa=mm(o) i=s(e)   i=f-tén.*
          1s=hear   3p=DAT   3p=IMPERF-arrive
          I heard them arrive.

      b)   *aɣa=b-m(o)   i=s(e)   i=f-tén.*
          1s=IMPERF-hear   3p=DAT   3p=IMPERF-arrive
          I hear them, they are arriving. (as we speak)

      c)   *aɣa=b-m(o)   i=s(e)   i=ttén.*
          1s=IMPERF-hear   3p=DAT   3p=arrive
          I hear them (they have) arrive(d).

'see' *guná*

(146)   *aɣa=ggun(á)=i   i=b-didá.*
          1s=see=3p   3p=IMPERF-walk
          I saw them leave.

'perceive' *yogá*

(147)   *aɣa=bb-óg(a)=í   i=ddidá*
          1s=IMPERF-perceive=3p   3p=walk
          I see that they have left.

The verbs 'see' and 'hear' are also used with the complementizer *sa*. Find examples under (152) and (153).

The verb *gár* 'find; come upon' is found with the same construction.

(148) a)   *aɣa꞊ggár*   *almán*   *a꞊f-keedí*   *bangú.*
             1s꞊find   herd   3p꞊IMPERF-be.on   well
             I found the herd at the well.

      b)   *a꞊ggár꞊i*   *i꞊kkós*   *íŋgi*   *káamil.*
             3s꞊find꞊3p   3p꞊cut   3p.EMP   all
             He found them (ears) all cut.

      c)   *i꞊ṣṣ-ə́wən*   *i꞊n*   *táyni*
             3p꞊CAUS-share   3p꞊GEN   date

             i꞊ggár꞊a   *ḍáalib*   *a꞊báara.*
             3p꞊find꞊3s   uneven.number   3s꞊be
             They distributed their dates and found there was an
             uneven number.

The verb *gór* 'must' has an impersonal 3s subject clitic *a꞊*, while the subject is only specified in the complement clause. The NP in the third example can be analysed as a preposed topic since it is not allowed to have nominal constituents between the matrix and the complement verb. In all cases the complement clause is in the imperfective.

(149) a)   *a꞊gor*   *i꞊b-ʃíkʃ(a)*   *áŋga*   *har...*
             3s꞊must   3p꞊IMPERF-CAUS.eat   3s.EMP   until
             they had to feed her until...

      b)   *a꞊gor*   *ni꞊b-dúwənn-ət*   *ənd(a)*   *aɣáy.*
             3s꞊must   2s꞊IMPERF-talk   with   1s
             you must talk with me.

      c)   *aɣa꞊n t-á-ŋgud*   *a꞊sə́-gor*   *a꞊b-dút*
             1s꞊GEN F-SG-girl   3s꞊NEG.IMPERF-must   3s꞊IMPERF-pound

             ana   *ni꞊wáni*   *a꞊b-gorá.*
             2s.DAT   2s꞊of   3s꞊IMPERF-sit
             as for my girl she does not have to pound for you (while)
             yours is sitting.

tə́gor 'begin' is marked with the same referent as the verb of the complement clause. The last example shows that a nominal constituent can precede the verb of the complement clause. This verb is always in the imperfective, e.g.

(150) a) bor-en   cind-en   i꞊ttə́gor   i꞊b-nín   i꞊ka
          person-PL   some-PL   3p꞊begin   3p꞊IMPERF-drink 3p꞊LOC
          some begin to drink from it.

     b) …ən꞊ttə́gor   ni꞊bb-eerí
          2s꞊begin   2p꞊IMPERF-vomit
          …you begin to vomit.

     c) igdá   a꞊ttə́gor   a-múnsu   a꞊b-díydi
          because   3s꞊begin   SG-food   3s꞊IMPERF-get.into

          bor-én   ən   í-ʃʃan-an   ka   har...
          person-PL   GEN   PL-tooth-PL   LOC   until
          because the food begins to get into the teeth of the
          people until...

The verb *ko* 'can' (also 'leave') has the choice between personal and impersonal syntax. This verb has different aspectual uses in positive and negative sentences. In positive sentences, the verbs in the matrix clause and in the complement clause are both in the perfective. In negative sentences, the verbs in matrix and complement clause are in the imperfective.

(151) a) ni꞊kkó   ni꞊dd(á)꞊i
          2s꞊can   2s꞊make꞊3p
          you can make them.

     b) ay꞊n   naná   a꞊kkó   a꞊yyiɣm(á) áa꞊se
          3s꞊GEN   mother   3s꞊can   3s꞊color   3s꞊DAT

          a-báktaw
          SG-cushion
          her mother can color a/the cushion for her (daughter).

     c) a꞊sə-kó   a꞊b-fún꞊a.
          3s$_1$꞊NEG.IMPERF-can   3s$_1$꞊IMPERF-pierce꞊3s$_2$
          it$_1$ (tool) cannot pierce it$_2$ (stick).

     d) gánd(a)   a꞊sə-kó   ni꞊b-léem꞊a
          earth   3s꞊NEG.IMPERF-can   2s꞊IMPERF-twine꞊3s
          earth, it is not possible that you twine it (to a thread).

There are a number of verbs that always have a 3s pronoun clitic that is used in an impersonal way. Structurally they always have a complementizer *sa* and will be treated in the following section.

4.3.10.3   Verbs with complementizer *sa*

Verbs of various semantic domains are found with a complement clause that is linked by *sa* COMP. The same particle is used for non-restrictive relative clauses (4.5.4) and to link the topic to non-verbal clauses (4.7.1.1).

The following verbs may take the complementizer *sa*:

'see' *guná*

The complement clause may be a verbal or a non-verbal clause as example (152) shows.

(152)　　　*i꞊gguná-kat　　　sá　　t-á-zdək-k*
　　　　　3p꞊see-VEN　　　COMP　F-SG-be.clean-F.SG
　　　　　áŋga　　　saffarí.
　　　　　3s.EMP　　　medicine
　　　　　they saw that cleanliness is medicine.

'hear sb.' *mó (hé se)*

(153) a)　*arw-én　　ooda　　ə́mmәs-kábahar i꞊mmó　　　sa*
　　　　　man-PL　　DEM.NEAT　maybe-when　　3P꞊hear　　COMP

　　　　　t-a-bә́llen-t　　ni꞊b-hurrú　　i꞊tə-wí　　nín.
　　　　　F-SG-fight-F.SG　2s꞊IMPERF-look.for 3p꞊FUT-kill　2s
　　　　　these men, when they hear that it is a fighting match you seek, they will kill you.

b) *nín   íizac(e)   ooda   a=b-mó   (a)=se*
2s.EMP   young.man DEM.NEAR 3s=IMPERF-hear 3s=DAT
s(a) a=ddá   aṇṇúdr(a) aɣo   n   əŋgám
COMP 3s=make   promise   DET   GEN   instant
you need to know, this young man heard her make this
promise mentioned before.

The interpretation of the complement in the last example is ambiguous. It could also be read as 'when she made…' with the clause initial particle *sa* 'when'.

See the use of 'see' and 'hear' with a verbal noun complement under 4.3.10.2.

'want' *báaɣa*

(154) a) *aɣa=bbáaɣa   sa   aɣ=tə-d(á)   ana   t-a-nə́fus-t.*
1s=want   COMP 1s=FUT-do   2s.DAT F-SG-story-F.SG
I want to tell you a story.

b) *a=bbáaɣa sa   (ə)n-tə-n(á)áa=s(e)   a-ɣáanib.*
3s=want   COMP 2s=FUT-give 3s=DAT   SG-pencil
he wants you to give him a pencil.

c) *aɣa=bbáaɣa   sa   (ə)n=sə-kó*
3s=want   COMP 2s=NEG.IMPERF-leave
I would like you not to leave.

d) *aɣ=sə-kúl   sa   (ə)n=tə-kó*
1s=NEG.IMPERF-want COMP 2s=FUT-leave
I don't want you to leave (*very impolite formula*).

'be necessary' *yilzəm* is a verb of light obligation, that takes a direct object. The direct object is co-referential with the subject of the complement clause.

(155) *aséeħat   a=yyílzəm   borá t-oo-lás-t*
health   3s=be.necessary person F-SG-do.again-F.SG
s(a) a=tə-z-ə́zdəg   aɣ=n   t-áa-ɣəssa
COMP 3s=FUT-CAUS-be.clean   3s=GEN   F-SG-body
(to stay in good) health it is also necessary for somebody
that s/he cleans his/her body.

'wish' *yasák*

(156) *aɣa=yyasák s(a)   a=tə́-kas   tangar-én*
1s=wish   COMP   3s=FUT-be lie-PL
I wish that it would (turn out to) be lies.

The following example illustrates a parallel use of a complement clause with *sa* and of a verbal noun complement.

(157) c(i)   andə꞊yyasák   s(a) andə꞊tə-dáy   aɣáy
       what 2p꞊wish   COMP 2p꞊FUT-buy   1s
       ḍaw   n   a   meɣ bún?
       LOC   SEP   3s   or   die.VN
       what do you wish, that you buy it with me or death?

'prefer' *yasáf*

(158) barr-én   i꞊yyasáf   s(a) i꞊tə-keen(í)
       child-PL   3p꞊prefer   COMP 3p꞊FUT-sleep
       i꞊n   nan-én   ən   áaṣi-tan   ka.
       3p꞊GEN   mother-PL   GEN belly.side-PL LOC
       children prefer to sleep against the belly of their mothers.

'be sure' *káw aʃʃak* (lit: 'to take out doubt')

(159) a) əndánga wiji   sa   (ə)n꞊tə-káw   aʃʃak
          if   is.not COMP 2s꞊FUT-take.out   doubt
          sa   ni꞊ss-ə́ɣrəd   ni꞊n   t-ə-kə́rḍaw
          COMP 2S꞊CAUS-be.complete 2s꞊GEN   F-PL-letter
          except when you are sure that you have assembled your
          papers

      b) káw   aʃʃak s(a) a꞊ttén
          take.out doubt COMP 3S꞊arrive
          be assured that he has arrived!

      c) wa   (ə)n꞊sə-káw   aʃʃak sa   ni꞊wáni
          IMP   2S꞊NEG.IMPERF-take.out doubt COMP 2s꞊of
          don't be sure that it (money) is yours!

The last example has a non-verbal complement.

'lose hope' *kaw áṭṭama*

(160)   har   i=kkaw   áṭṭama
         until 3p=take.out hope
         s(a)   i-sə́ftar   i=tə-tén   íi=daw
         COMP   PL-put.on   3p=FUT-arrive   3p=LOC
         until they lost hope that bedding would arrive at their
         place.

'begin' *s-əntá*

(161) a) a=ss-əntá   s(a) á=b-ŋa
          3s=CAUS-begin   COMP 3S=IMPERF-eat
          she began to eat (*first time or again after e.g. sickness*).

      b) a=ss-əntá   s(a) a=ŋŋá
          3s=CAUS-begin   COMP 3S=eat
          she began to eat.

'be at the point of' *yabúk*

(162)   gə́lək   a=yyabúk   s(a) a=tə-wí=i
         hunger   3s=be.at.point.of COMP 3S=FUT-kill=3p
         hunger was at the point of killing them.

The verb *hurrú*, 'look for', can be translated 'try' when it is followed by
a complement clause.

(163)   aɣa=b-hurrú   s(a) aɣ=tə-kár   a=ka   huurú.
         1s=IMPERF-look.for COMP 1s=FUT-hit   3s=LOC   fire
         I try to make fire on it (wooden stick).

'think' ~ 'believe' *yordá*

(164) a) aywa   aɣa=yyordá s(a) aɣa=n
          RESUME   1S=think   COMP 1S=GEN
          t-a-nə́fus-t   ánga   n(e) áyda
          F-SG-story-F.SG   3S.EMP   place DEM.PROX
          well, I think that this was my story.

      b) aɣa=yyordá   s(a) a=tə-tén   zə́rooda
          1s=think   COMP 3S=FUT-arrive   today
          I believe/think he arrives today.

'ought to' *may-ənda*

(165) a) á=mmay-ənda   s(a) a=tə-wi=á
          3s1=have-with COMP 3s1=FUT-kill=3s2
          s/he ought to kill it.

b) *ar=sə́-may-ənda*   *s(a)*
   1p=NEG.IMPERF-have-with COMP

   ar=tə-din(í) ana   *a-sáafu.*
   1p=FUT-take 2s.DAT   SG-greet
   we ought not to respond to your greeting.

'have the means to' *kun-ənda* (lit: 'find with')

(166) a) *aɣa=kkun-ə́nda*   *s(a)* *aɣ=tə-kóy-kat*   *nin.*
      1s=find-with   COMP 1s=FUT-go-VEN   2s
      I have the means (time) to come to you.

   b) *ar=nə-kun-ə́nda*
      1p=NEG.PERF-find-with

      s(a) ar=tə-ʃ-íʃu   *borá.*
      COMP 1p=FUT-CAUS-drink.BND   person
      we do not have the means to give a drink to somebody.

The following verbs all have a 3s subject clitic that needs to be read as impersonal.

The intransitive verb *yahór* 'need to (do)' is used in an impersonal construction.

(167) a) *əs-káhar*   *ni=n*   *karfú a=kkós*
      maybe-when   2s=GEN   rope 3s=cut

      a=bb-ahór   *sa*   *(ə)n=tə-s-ə́mm-ərkəs=a*
      3s=IMPERF-need   COMP 2s=FUT-CAUS-RECI-tie=3s
      when your rope is broken you need to retie it together.

   b) *a=bb-ahór*   *sa*   *borá kullú a=m-báy*
      3s=IMPERF-need   COMP person each 3s=SUBJ-know

      s(a) íʒy-en...
      COMP fly-PL
      it is necessary that everybody knows that flies...

The verb *yába* 'lack' is used in an impersonal construction. It is used in sentences which translate into English as 'no more, no longer'

(168) a)   *a̱=yyába   s(a)   aɣa̱=ddə́bət*
         3s꞊lack   COMP   1s꞊be.able
         I can't any more.

      b)   *a̱=yyírɣəd   a̱=yyába   s(a)   a̱=f-cí   hé*
         3s꞊be.silent 3s꞊lack   COMP   3s꞊IMPERF-say   thing
         he is silent, he no longer says anything.

The verb *híʃʃil* 'be obliged to' is always used in an impersonal construction. The person who is obliged is either a direct object of the verb (a, b), or, implying an obligation which is less strong, an oblique object (c).

(169) a)   *a̱=híʃʃil   aɣáy s(a)   aɣ̱-tə-kó   á-ɣrəm.*
         3s꞊oblige   1s   COMP   1s꞊FUT-go   SG-town
         I must go to town.

      b)   *a̱=híʃʃil꞊a   s(a)   a̱=tə-kó   á-ɣrəm.*
         3s꞊oblige꞊3s   COMP   3s꞊FUT-go   SG-town
         he must go to town.

      c)   *a̱=híʃʃil   áa̱=ka   dá   s(a)   ánga   dá*
         3s꞊oblige   3s꞊LOC   INT   COMP   3s.EMP   INT

         a̱=tə-da   hé   (a)ɣo bor-én   i̱=ddá.
         3s꞊FUT-do   thing DET   person-PL   3p꞊do
         it is expected of him that he, too, does what the people do.

4.3.10.4   *Complement clause with* kúd *and* kud da

Kúd 'if' introduces a subordinate clause after certain verbs of intellectual activities, such as *báy* 'to know', *s-ə́stən* 'to ask' and *sə́-mm-ədrən* 'to reflect on'. *kud dá* 'if (at all)' rarely occurs in the same context.

(170) a)   *aɣa̱=b-sə́-mm-ədrən   kúd   a̱=ttén   meɣ*
         1s꞊IMPERF-CAUS-RECI-turn.around if   3s꞊arrive   or

         a̱=nə-tén.
         3s꞊NEG.PERF-arrive
         I am asking myself if he has arrived or not.

b) *a=sə-báy*   *ʃeddí kúd a=f-kó*
    3s=NEG.IMPERF-know   yet   if 3s=IMPERF-leave

    wal(a)   *a=b-gorá-kat.*
    or   3s=IMPERF-sit-VEN
    he doesn't know yet if he'll leave or stay.

The verb in the following example is a complex idiom, *ay=n i-m-ádr-an i=kkun(á) aɣáy* (3s=GEN PL-RECI-turn.around-PL 3p=find 1s.O) literally 'its/his thoughts found me' which can be read as 'I am worried about' and can take a *kúd*-complement.

(171)   *i-má-dran-an*   *i=kkun(á)-a*
        PL-RECI-turn.around-PL   3p=find-3s
        íizac(e)   *óoda wán-en*
        youth   DEM of-PL
        kud a=tə-yiddár-kat wal(a)   *a=tə-hang(á)*
        if 3s=FUT-live-VEN   ou   3s=FUT-pass.over
        ənda he   n   kun(á)   óoda.
        with thing GEN find.VN   DEM
        she was worried about this boy, if he would live or pass away with this sickness.

The next example is an instance with the verb 'look' and *kúd*.

(172)   *bora*   *əmməs-kábahar ni=m-hurr(ú)*   *áa=ka*
        person   perhaps-when   2s=SUB-look.for   3s=LOC
        t-a-rásway-t   *háaṣi kud (dá)*
        F-SG-clothing-F.SG look   if   (INT)
        áŋg(a)   *ənd(a)*   *ay=n*   *gá*
        3s.EMP   with   3s=GEN   self

<div style="margin-left:2em">

aɣo   báar(a)   ay=n   jinji
DET   be   3s=GEN   neck
kud   á=mmay   t-a-rásway-t   wal(a)
if   3s=own   F-SG-clothing-F.SG   or
a=sə́-mmay   t-i-zzár-t   ni=bb-ə́ṇsi.
3s=NEG.IMPERF-own F-SG-be.before-F.SG   2s=IMPERF-beg
when you try to get a piece of clothing from somebody,
look if he himself, the one (shirt) on his body, if he has a
shirt (worth being called a shirt) or not before you beg (of
him).

</div>

This same particle is used in Tamasheq with the same function but
also for other uses. Find more about *kud daɣ* 'even if' under
conditionals in 4.8.3.4.

4.4 Copular clauses

In this chapter clause types are discussed that show no inflected
verb. Such a construction is used to encode the identity of an entity
(4.4.1). Presentative expressions are also found in this chapter
(4.4.2). To posit the existence of something, the copula *báara* is used
and non-existence is encoded with *ʃi* (4.4.3). In section 4.4.4
locational predication is discussed, and the last section (4.4.5)
presents possessive predication.

4.4.1 Equational clauses and 'be', 'become', 'not be'

Positive unfocused equational predication ('X is a teacher') is
expressed without a verb or any other kind of grammatical
morpheme. A noun is followed by a noun or an NP. A pronominal
referent is expressed by an independent pronoun. A single noun can
form a predication, see (174). Any time reference is given by
situational or textual context.

Equational clause

(173) a)   *t-a-buɣán-t   [feejí   ʒen-ʒen-án]*
           F-SG-old.sheep-F.SG   sheep be.old-DUP-ADJZR
           'tabuɣant' is an old sheep.

     b)   *[aɣa=n   bér]   mooʃí*
          1s=GEN   older.sibling teacher
          my older brother is a teacher.

c) *áari   ʃammúʃ*
   1p.EMP   five
   we are/were five (people).

d) *íŋgi   i-bororóji-tan*
   3p.EMP   PL-ethnic.name-PL
   they are/were Fulbe.

The equational clause can be used for identification. For negation of identity the particle *wiji* 'is not' is used, which only occurs in this context, as a tag in tag questions (4.7.3.2), and in combination with one of the 'if' markers (4.8.3.1). The particle immediately precedes the noun it negates.

(174) a) *aɣa=n   báarar   íizace   wiji   t-á-ŋgud*
       1s=GEN   child   boy   is.not F-SG-girl
       my child is a boy, not a girl.

b) *wiji   t-á-ŋgud   íizace*
   is.not F-SG-girl   boy
   it's not a girl, (it's) a boy.

The verb *kas*, 'be / become', is used when one of the elements is in focus. It may or may not set the timeframe before the speech act. In the following example the object 'slave' is fronted before the verb for focalization.

(175) a) *igán   ṭaamú   aɣa=kkás?*
       QST   slave   1s=become
       am I a slave? / have I become a slave?

b) *aɣ=n   a-sə́stan   za   hé   (a)=káas=a ...*
   1s=GEN   SG-ask   LC   thing 3s=become=3s
   so my question, this is it: ...

The last example is almost presentative in character. This use is often found with abstract entities like 'a story'. Objects that are presented ('Here is X') use a different strategy (see below).

kas 'be/become' is a full verb and can occur with all MAN markers

(176) a)   *...cedd(i) arə=f-kás   barr-en   ceená-nanən.*
            still   1p=IMPERF-be   child-PL   be.small-ADJZR.PL
            ... when we were still small children.

      b)   *áŋga dá   a=nə-kás   ar=n   á-ʃʃaɣal.*
            3s.EMP INT 3s=NEG.PERF-be   3p=GEN   SG-work
            As for that, it is not our work.

      c)   *...har h(e) óoda   a=m-kás   a=se*
            until   thing DEM.NEAR   3s=SUBJ-become   3s=DAT
            he   n   kuná
            thing GEN find.VN
            ...until this (may) becomes a sickness for him.

      d)   *t-a-baráŋyaw-t   aɣó   (a)yda   a=tə́-kas*
            F-SG-left.over-F.SG DET   DEM.PROX   3s=FUT-become
            t-á-gnaw-t....
            F-SG-sickness.kind-F.SG
            This same leftover will become sickness (kind)...

4.4.2 Presentative expressions

Two kinds of presentative clauses are found. Both have a singular and a plural form. One kind presents an item/items close to the speaker and the other presents an item/items at a further distance. A third, neutral shape is reported to encode 'availability' and does not stress location.

(177)   Presentative surface shapes

	single item	several items
neutral	*né*	
proximal	*náani*	*níina*
distal	*nóo-se*	*níi-se*

All expressions contain a /n/ element that is possibly the part that encodes 'location', compare the elements *né* 'here/there (where)' that encodes location in some way and *no* 'there' used in some other contexts to encode remoteness (see below). Both terms are also present in Mainstream Songhay with similar semantics. Both *ne* and *no* end in a vowel that can be deleted when another vowel follows.

These considerations should be kept in mind as we look at the details of the presentative expressions.

4.4.2.1   né / náani / níina *'… is/are here'*

The following construction occurs only once in the corpus.

(178)   *á-lkas   né.*
        (tea)glass   here
        here is a glass (available).

This form is reported to carry very low stress on location. The term could be read as 'available'.

The other presentative marker seems to consist of three elements. Assuming that the question 'where is…?' (*maaná*) contains the same elements as the answer 'here is…', the first element *na* is a 'be'-copula followed by a clitic (singular or plural) and a third element encoding 'here/place/location'. Consider the examples:

(179) a)   *[ni=n   fatílla]   [n(a)=áa-ni]*
           2s=GEN   torch   be=3s-LOC
           here (is) your torch.

      b)   *[fatílla-tan] [n(a)=íi-na]*
           torch-PL   be=3p-LOC
           here (are) the torches.

There is no good explanation for the difference in the last element and informants consistently deny a possible connection with *né* 'here'. The expression as a whole is very much focusing on 'location', the precise place where the item in question is.

The above examples could also be analyzed as containing the demonstrative *na* OPP that precedes the noun it accompanies, followed by a plural clitic -*i*. The final vowel is deleted and shows as *n(a)-í* 'that(pl)'. This analysis is less attractive, though, because *na*

OPP is not attested followed by any other element than *aɣo* DET or a full noun.

4.4.2.2 nóose / níise *'… is/are there'*

The location indicated with these expressions is not very precisely identified. The location is still within sight but no longer within reach of an arm.

The form has the following structure. First comes an element *no* (see below). This is followed by a 3d person pronoun. According to regular vowel assimilation rules, the vowel /a/ of the singular is deleted after /o/ while the vowel /i/ of the plural is maintained. Last comes the element *se*.

For the element /no/ there are several possible identifications. It appears only in two other contexts in Tadaksahak.

In the first context it can be interpreted as a fusion of the elements *né + o* (place + DEBR) 'location with a broad reference' = 'there (non-specific)'. Find examples under 4.5.1.

The other context points in the same direction. *no* is found after plural determiners to point to the past or 'distant from here' (ex. *aɣónda-no béer-ənən* DET.PL-there be.big-ADJZ.PL 'those big ones there' (see 4.1.4, also Ex (64)), and it appears following the noun *əngám* 'instant' and indicates 'past in time' (e.g. *əngám-ə-no* /instant-[ə]-there/ 'mentioned before'). These meanings can be seen as temporal interpretations of 'there, away in space'.

A typical presentational expression for an item in the distance has the following structure.

(180) a) *aɣa꞊n*   *húgu*   *nóo-(a-)se*
       1s꞊GEN   house   there-3S-there
       my house is (over) there.

     b) *ni꞊n*   *t-ə́-mgad-an*   *íŋgi*   *n(óo)-íi-se,*
       2s꞊GEN   F-PL-girl-PL   3p.EMP   there-3P-there
       your girls, they are (over) there.

A relationship to the KCH Songhay term /nono/ 'it is' (identificational copula) and KS /no/ 'it is' cannot entirely be excluded, even though they are syntactically different. *no* could then be read as a 'be'-copula followed by a singular (not audible) or a plural (íi) pronoun with the adverbial 'there' i.e. /be-3s-there/ and /be-3p-there/ respectively.

KS also has a particle /no/ which can at times be glossed as 'there' (Heath 1999b:86) with very low stress on a semantic 'location'. This particle joins our initial approach of a not very specific locational expression that points in the distance.

4.4.3 Existential predications

Existential predication is expressed with the intransitive verb *báara* 'be/exist'.

(181) a)   *assakúr   a=báara.*
           sugar   3s=exist
           there is sugar.

    b)   *ary-én   i=báara.*
           water-PL   3p=exist
           there is water.

A special case is illustrated in the example below.

(182)   *..sa (ə)n=sə-káw   əmmək   aɣo bé   ni=báara*
        COMP 2s-NEG.IMPERF-take manner   DET   on   2s=exist
        ...that you will not change the way you are (now)

In this example the stative quality of this verb is addressed. *kas* 'be/become' would not fit here since this verb has a semantic component of 'change' and here the state at the moment of the speech is in focus.

In order to negate the existence of an item the verb *ʃí* 'not to be' is used. This verb may be related to the NEG.IMPERF prefix *sə-*. Mainstream Songhay has similar elements to express the negation of 'exist', i.e., /sii/ in KCH (Heath 1999a:148), and /sii ~ ʃii/ in KS (Heath 1999b:179ff).

(183) a)   *assakúr   a=ʃí*
           sugar   3s=not.be
           there is no sugar.

b)   *ary-én*   *i꞊ʃʃí*
    water-PL   3p꞊not.be
    there is no water.

If the referent is known, the negative copula with a 3rd person clitic is sufficient to express 'there is none', *a꞊ʃʃí*.

Both *báara* and *ʃí* can be used without overt MAN marking in present or future context.

Both expressions are also part of the locational predications described in the paragraph below (4.4.4).

A different way to express the non-existence of something is the particle *wǝ́rtilla* 'there is not'. This particle has been taken over unanalyzed from Tamasheq /wǽr꞊t i-lla/ 'there is not' (Heath 2006:588). The syntax of *wǝ́rtilla* is different from that of phrases with *ʃí*. The particle precedes the negated noun similar to the negation of identity shown above (example (174)).

(184)   *iddá əmməs-kábahar*   *wǝ́rtilla*   *alxér*
    because maybe-when   there.is.not   peace
    wǝ́rtilla   *kúḍ,*   *wǝ́rtilla*   *habá*
    there.is.not   pasture.VN   there.is.not   harvest.VN
    wǝ́rtilla   *assóq*   *ən*   *kóy*
    there.is.not   market   GEN   leave.VN
    because, if there is no peace, (as consequence) there is no leading the animals to pasture, no harvesting, no going to the market.

4.4.4   Locational predications

Locational predicates are based on *báara* 'be in' and *keedí* 'be high on'. For both of them the location can be expressed by a nominal direct object (unmarked complement), a locative adverbial or a locative postpositional phrase with *daw*. The third locational verb is *keení* 'lie' which is used for items that do not stand. This same root means 'sleep' when the subject is a human referent. The verb *keení* needs an adpositional complement with the postposition *ka* to express the location.

Locational verbs

(185) a)   a=báara   sénda
            3s=be   there
            she is/was there.

      b)   a=báara   néeda
            3s=be   here
            he is/was here.

      c)   a=báara   [t-ə-míʒar   asénda]
            3S=be   F-PL-old.camp   DEM.FAR
            she is/was in that old camp.

      d)   a-másloɣ   a=f-keed(í)=a
            SG-sattle.blanket   3s=IMPERF-be.on=3s
            the/a saddle blanket is on it (camel).

      e)   ceed(í)   á=f-keeni   [gánda   ka]
            spoon   3s=IMPERF-lie   earth   LOC
            the/a spoon lies on the ground.

báara is also used in sentences with the postposition *daw* 'at (somebody's)' *a=báar(a) aɣáy daw* (3S=be 1s LOC) 'She is at my place.'

báara can also be used to attribute a quality to an entity. The quality in a nominal form is the subject and the referent having the quality is the direct object.

(186) a)   diŋg(á)   á=báar(a)   aɣay
            forgetfulness   3s=be.in   1s
            I am forgetful (Lit: forgetfulness is in me).

      b)   gorgor-én   i=báar(a)   áŋga
            laughter-PL 3p=be.in   3s.EMP
            it is amusing. (Lit: laughters are in it, e.g. a story)

When the quality is attributed to a tall animal, like a camel, one can also use the verb *keedí* with the same meaning.

(187) *á-mṇəs* *aɣ(o) óoda* *a-xə́rrəm* *a=f-keed(í)=á*
SG-camel DET DEM.NEAR SG-disobedience 3s=IMPERF-be.on=3s
this camel, it is disobedient.

The absence of an item in a certain location is expressed with the verb *ʃi* 'not to be' that takes an adverbial (a) or an unmarked complement (b) to express the location. The fronted NP in ((188)b) encodes the location where the presence of 'water' is negated

(188) a) *a=ʃʃi* *néeda* *da* *sénda.*
3s=not.be here INT there.
it is neither here nor there.

 b) *T-óoruf-t* *ary-én* *i=ʃʃí=a*
loc.name water-PL 3p=not.be=3s
In T., there is no water.

The verb 'to lose' is expressed with the verb 'not exist' with an adpositional complement. Syntactically the 'lost item' is the subject and the person who lost something is expressed by the complement. A very literal reading could give 'Y does not exist in X'.

(189) *á-zṛəf* *a=ʃʃ(í)* *aɣáy ka.*
SG-silver 3s=not.exist 1s LOC
I lost (some) money.

4.4.5 Possessive predication

The verb *máy* 'have' expresses ownership. The owned item is the object of the clause.

(190) a) *á=mmay* *haw-yén*
3s=have cow-PL
he owns cows.

 b) *áa-nibo* *a=sə́-mmay* *baabá.*
SG-bastard 3s=IMPERF.NEG-have father
an illegitimate child has no father.

In some instances it can also be translated as 'belong to', e.g. when the identity of a person is questioned.

(191) a) *cí* *mmáay=a?*
who have=3s
who is he? (Lit: who owns him = to whom does he belong?)

b) i-dogíri-tan   nə-mmáy aɣáy
   PL-clan.name-PL   FOC-have 1sO
   I belong to the Idogiritan. (Lit: It's the I. who own me)

In order to topicalize the possessum, a non-verbal identificational construction is used.

(192)   [huur(ú)   asénd(a)] [alfáqi   wáni]
         fire   DEM.FAR   teacher   of
         that fire is the teacher's = belongs to the teacher.

This same construction is used to identify the owner.

(193) Q: cí   mmáy   feej(í)   aɣ(o) óoda?
          who   have   sheep   DET   DEM.NEAR
          who owns this sheep?

      A: aɣ=wáni
          1s=of
          (it's) mine.

The verb *máy* is also found together with attributive nouns like stubbornness and wisdom. It then expresses 'being of that quality'. The subject is the entity exposing the quality.

(194)   á=mmay   táyta
         3s=have   wisdom
         he is intelligent.

Summary

In the table below 'N' stands for the entity about which further information (existence) is given. 'L' designates the place where a location name is expected to express a location.

	positive		negative
identity	no marker		*wiji* + N
existence	N + *báara*	'be'	N + *ʃí* / *wə́rtilla* + N
location	*báara* + L	'be in'	*ʃí* + L
	keedí + L	'be (high) on'	
	keení + L *ka*	'lie on'	
possessive	*máy*	'have'	NEG-*may*

4.5   Relative Clauses

Tadaksahak has two different types of relative clauses (RC). The formal difference is the presence or absence of the complementizer *sa*, that typically introduces a non-restrictive relative clause that gives additional information about the referent. Restrictive RCs, i.e., RCs with identificational information about the referent, show a different construction for subjects and when other parts (object, oblique objects) are relativized. Only subject relatives ('a man who eats') can be marked by the presence of *nə-/ən-*, a demonstrative-like particle, which occurs when the MAN marker (Mood-Aspect-Negation) on the verb has the shape CV-.

The RC normally follows the noun it modifies immediately and so may be placed in the middle of the main clause. The end of such a RC is typically marked with a short pause that prevents vowel contraction.

Possessors ('my mother whose house…') can only be relativized by means of the *sa* complementizer. This is discussed below (4.5.4.2). When the head NP is an independent pronoun ('you who…') the marker *nó(o-da)* 'there' must follow the pronoun. Find the discussion in 4.5.3 below.

4.5.1   Restrictive relative clause

Mainstream Songhay has a single strategy using the invariable relative morpheme /kaa/ in Timbuktu (Heath 1999a: 186) or /kaŋ ~ kan ~ ka/ in Gao (Heath 1999b: 241). Under certain circumstances a resumptive pronoun is found in relative clauses (Heath 1999b:244) and adpositional RCs may remain in situ with a corresponding pronoun. Heath analyzes Songhay RCs as consisting of a head NP connected with the REL /kaa ~ kaŋ/ to the embedded clause. In contrast to Songhay languages, Tamasheq is considered to have RCs with an internal head, a demonstrative, and differentiates between definite and indefinite RCs, while a resumptive pronoun does not normally occur (Heath 2005:624ff). In addition, subject relativization is marked on the verb by means of special inflection. Tadaksahak RCs show many features that can also be observed in Tamasheq: a) subject RCs have a different inflection from other relativized relations (object, oblique objects). b) there are no resumptive pronouns. When the head has been extracted from a

postpositional phrase, the bare (4.5.1.3, see below) postposition is put at the left edge of the relative clause.

The analysis of the linking of the relative clause to the head is somewhat complicated. Relative clauses with a definite head always have the element *aɣo* 'DET'. Outside relative syntax, this element may accompany different kinds of NPs and gives them salience in their context (4.1.4). It also functions as a pronominal head of relative clauses which have no NP head. Its function is very much like that of the demonstratives /w-a, w-i, t-a, t-i/ of Tamasheq, minus the gender distinction. Dialectally different plural forms are attested. In a NP that is relativized, *aɣo* can be accompanied by a demonstrative, e.g. *i=tə-húur(u) a-múnsu aɣ(o) óoda ni=ŋŋá…* (3s=FUT-enter SG-food DET DEM 2s=eat) 'it (left over food) will enter into the food (that) you eat…'.

When the head noun is indefinite, *aɣo* 'DET' does not appear.

Two analyses come to one's mind here. In the first analysis, *aɣo* 'DET' is simply a determiner of the head noun; the main difference with normal determination is that the head noun, when definite, is <u>obligatorily</u> marked by *aɣo* 'DET', while this is not the case in other contexts. Definite-head and indefinite-head restrictive relative clauses would then have the same structure, being marked by the use of *nə-/ən-* in subject relatives and by the left-edge position of the pronoun-less postposition in prepositional relatives.

As *aɣo* 'DET' also may function as the sole pronominal head of a relative clause ('the one that'), a different analysis is also possible. In this analysis, definite-head relative clauses would have a clause-internal pronominal head, while indefinite-head relative clauses would have to do without. This analysis would be similar to that by Heath (2005) for Tamasheq; however, one should note that the Tamashek structure is not entirely identical to the Tadaksahak structure, as Tamashek also allows for indefinite pronominal heads.

When adpositional complements are relativized, the PPs are fronted to the clause and follow the (definite) NP with *aɣo* as the last element or the head noun immediately when it is indefinite.

The two analyses can be schematicized as follows:

(196) Definite and indefinite RC: two analyses

analysis 1	definite	head noun *aɣo* [RC]
	indefinite	head noun [RC]
analysis 2	definite	head noun [*aɣo* RC]
	indefinite	head noun [RC]

The following scheme lists the different particles that can follow *aɣo* when it is part of a relativized NP.

	nə-/ən-
DET	demonstratives
DET.PL	postpositions
	sa

The more economic analysis of the two possibilities presented above seems to be the option where there is one kind of RC and a relativized definite NP contains obligatorily *aɣo*.

4.5.1.1   Subject relatives

In subject relatives, the verb is preceded by the extraction marker *nə-/ən* (glossed EXM) when *se-* 'NEG.IMPERF' *nə-* 'NEG.PERF' or *tə-* 'FUT' are the MAN markers (Mood-Aspect-Negation) on the verb and takes the place of the subject clitic in the RC. It is indifferent to number. Before the other MAN-markers (perfective *b-/f-* and unmarked imperfective), EXM is dropped for some unknown reason, or possibly fully assimilated to the following consonant. EXM has the same shape and appears in the same place (when it is present) as the focus marker for subject focus (see 4.7.2.1).

Examples under (197) show subject RCs where the MAN markers allow no 'extraction marker' EXM, while (198) gives examples with *nə-/ən-*.

(197) a)   *bor(á)*   *aɣo*   *[ṭṭáw-kat   néeda]*
person   DET   reach-VEN   here
the person who arrived here

   b)   *i-múṇas-kon*   *aɣondo*   *[zzumbu   ʕáali   daw]*
PL-camel-owner.PL DET.PL   go.down   prop.name LOC
the camel riders who dismounted at Rhali's (place)

c) *bor(á)   aɣo [ʃ-keedí   t-á-ɣlam-t]*
person   DET IMPERF-be.up   F-SG-riding.camel-F.SG
the person who is riding the camel

d) *a-ʒáaʒib   [dá   ʃ-íkʃiḍ]*
SG-phantom   put CAUS-fear.VN
a phantom that frightens

e) *hé [b-s-əgd(á)   ənda ni=n*
thing IMPERF-CAUS-be.equal   with 2s=GEN
á-ʃkar   ən   ʒíibi]
SG-nail   GEN dirt
something that is the size of the dirt under your nail

(198) a) *aarú aɣo [nə-nə-hunú   húgu   daw]*
man   DET EXM-NEG.PERF-leave   house   LOC
the man who did not leave from home.

b) *aaru aɣo [n-sə-húuru   ay=n   car-én]*
man   DET EXM-NEG.IMPERF-enter 3s=GEN   friend-PL
the man who is not together with his (boy)friends
(…becomes a girl.)

c) *he   (a)ɣo [n-tə-nin=i]*
thing   DET EXM-FUT-drink=3p
the thing (human/animal) that will drink it (water)

d) *tú   [ən-sə-yáhar]*
bowl   EXM-NEG.IMPERF-be.covered
(it sees) a bowl that is not covered

e) *tuw-yén   [ən-sə-yáhar]*
bowl-PL   EXM-NEG.IMPERF-be.covered
pots that are not covered...

f) *[a-ẓúbara nn   éeʃam]*
SG-warthog GEN   fat
[ən-tə-huuṛ(ú)   áy=n   t-í-nʒar]   kor-korr-í
EXM-FUT-enter   3s=GEN   F-PL-nostril   DUP-be.hot-ADJZR
(except) hot warthog fat that enters his trunk

g) *hawrú   [nə-nə́-hina   húllən]*
meat   EXM-NEG.PERF-cook   much
(he eats) meat that is not well cooked.

h) *Iyyá [cíidaw ən hé   fó] [nə-nə́-faṛəṛ]*
yes   bird GEN thing IND   EXM-NEG.PERF-be.important
yes, a little bird that is not important.

4.5.1.2   Object relatives

The scheme below is valid for all non-subject RCs.

(199)   Structure of restrictive non-subject RC

     Direct object   noun (DET) (DEM)   [(NP) verb]

     Adposition   noun (DET) (DEM) [adposition (NP) verb]

Tadaksahak does not leave any pronominal trace in an object RC. This is the same behavior as observed in CHK (Heath 1999a:191) and Tamasheq, but different from KS where a resumptive 3rd person pronoun is left in the place of the extracted noun (Heath 1999b:244). In the examples below, the place where a direct object would appear if the clause had been a main clause is marked with Ø.

(200) a)   *áʃʃaɣal aɣo [aɣa=mmáy nín   ka   Ø]   a=bbén*
         work   DET 1s=have   2s   LOC   3s=be.finished
         the work I have for you is finished.

     b)   *i-múnsuw-an   aɣondó*
         PL-meal-PL   DET.PL
         [aɣa=b-fúr-an   ándi se   Ø]
         1s=IMPERF-throw-ALL   2p   DAT
         the food that I threw to you

     c)   *almitál   aɣ(o) óoda   [aɣ=tə-har andi se   Ø]*
         example   DET DEM.NEAR 1s=FUT-tell 2p   DAT
         this example that I will tell you

     d)   *he   (a)ɣ(o)   óod(a)   [a=b-da   Ø]*
         thing DET   DEM   3s=IMPERF-do
         what he did (lit: this thing that he did)

     e)   *t-a-nə́fus-t   [[aɣá=n   bab(a)*
         F-SG-deed-F.SG   1s=GEN   father
         aɣo ʒéen-i]   a=ddá   Ø].
         DET   be.old-ADJZR 3s=do
         a courageous deed that my grandfather did...

     f)   *a-kárʃay   [a=kkun(á) áa=ka Ø] a=ʃʃí   aa=ka*
         SG-cloth   3s=find   3s=LOC   3s=not.be   3s=LOC
         a scarf she got from her is lost.

4.5.1.3   *Postpositional relatives*

In postpositional relatives the postposition is put to the left edge of the RC.

(201) a)   *ni꞊n   hinciní   aɣo   [se   ni꞊f-kós꞊i]*
       2s꞊GEN   goat   DET   DAT   2s꞊IMPERF-cut꞊3p
       your goat for which you cut them (branches)

    b)   *a꞊yyéd   i꞊n   áŋgu   aɣo*
       3s꞊return   3p꞊GEN   place   DET
       [k(a) i꞊yyízdaɣ].
       LOC   3p꞊live
       he returned to the(ir) place in which they live.

    c)   *záɣri aɣo [ká   ni꞊ss-ə́bdəd꞊i   aɣá꞊n   mo   ka]*
       day   DET   LOC   2s꞊CAUS-stop.BND꞊3p   1s꞊GEN   face   LOC
       the day (on which) you bring them before me...

    d)   *agúd   aɣ(o) óoda   [ka   a꞊bbáaɣa   s(a)*
       moment   DET   DEM.NEAR   LOC   3s꞊want   COMP
       a꞊tə-mə́ṭṭəkwi]
       3s꞊FUT-move.on
       the (precise) moment (when) he wanted to move on…

    e)   *bídaw   aɣo sénda   [k(a)*
       canister   DET   DEM.FAR   LOC
       ary-én   i꞊f-t-ə́wi-yan   íi꞊se]
       water-PL   3p꞊IMPERF-PASS-bring.BND-ALL   3p꞊DAT
       (he brought) that canister in which water had been
       brought to them

    f)   *áy꞊n   baŋgú   aɣo [b(e) a꞊zzumbú]*
       3s꞊GEN   head   DET   LOC   3s꞊descend
       her head on which it (bird) landed

    g)   *a-ɣázar   aɣo*
       SG-pond   DET
       [daw áy꞊n   ary-én   i꞊tə-káy]
       LOC   3S꞊GEN   water-PL   3p꞊FUT-stop
       the pond at which (rain wash) water stops

    h)   *ée-dag   [ka   t-áa-har-t   a꞊háy]*
       SG-place   LOC   F-SG-lion-F.SG   3s꞊give.birth
       (until she saw) a place where a lioness had given birth.

    i)   *hé   [b(e) id-ádduwul   i̠b-zóɣ]*
           thing LOC PL-country   3p꞊IMPERF-fight
           a thing about which countries fight

    j)   *t-á-ŋgud   [s(e) a꞊ddá   hé]*
           F-SG-girl   DAT 3s꞊do   thing
           a girl for which he did something

4.5.1.4   Prepositional relatives

The instrumental marker is a preposition when it accompanies nouns. In relative clauses, the preposition is put to the left edge of the RC, exactly like the postpositions. In RC with the *ənda*, *aɣo* is always present.

(202) a)   *ə́mmək   aɣó [(ə)nda   aɣ꞊tə-dá꞊a].*
           manner   DET   with   1s꞊FUT-do꞊3s
           how I am going to do it. (Lit: manner with which...)

    b)   *ṭ-á-ṣṣuḍ   aɣó [(ə)nda   ni̠kkóos꞊a]*
           F-SG-ax   DET   with   1s꞊cut꞊3s
           the ax with which you cut it.

For possessor relativization see 4.5.4.2 below.

4.5.2   Relativization of generic terms

This type of RC is formally not different from the restrictive type. One such generic term is *hé* 'thing' that can designate humans as well as animals in certain contexts. This is shown in the example below.

(203)   *íttilla hé [nín aa꞊ka]   yeer-án   ənd(a)*
           each thing drink 3s꞊LOC   vomiting-PL and
           a-ʃíbuku   a꞊tə-kun(a)꞊a.
           SG-diarrhea 3s꞊FUT-find꞊3s
           whoever (humans/animals) drinks from it, will get vomiting and diarrhea.

4.5.2.1   Existential expressions with relativization

The RC of an existential expression uses the same construction as shown in the previous sections. Expressions like 'nothing' and 'nobody' are based on the existential verb *ʃí* 'not be'. Relativization of such terms typically has the RC separate from the head noun by the existential verb:

(204)   [bor(a)   a꞊ʃʃí]   [máy i-múṇas]
          person   3s꞊be.not   own PL-camels
          əndáŋga   wij(i) I-dáksahak.
          if   not.be PL-ethn.name
          there is nobody who has camels except the Idaksahak.
          (Lit: a person does not exist who owns camels…).

Likewise, with the noun *he* 'thing' the construction is the same.

(205)   [h(e) a꞊ʃʃí]   [yáhal s(a) a꞊tə-mán-kaat꞊a]...
          thing 3s꞊be.not   dare   COMP 3S꞊FUT-appoach-VEN꞊3s
          nobody dared to approach it.... (Lit: a thing is not that
          dared...)

The Tamasheq negative existential *wártilla* 'there is not' behaves differently. The term behaves like an unanalyzable particle in Tadaksahak. It precedes the noun whose non-existence it posits (4.4.3). In relative clauses with *wártilla*, the determiner *aɣo* is present, even though the referent is indefinite. Note that EXM is present under the same conditions as discussed above.

(206) a) aɣa꞊bbáy   sa   wártill(a)   á-mṇəs   aɣo
          1s꞊know   COMP there.is.not SG-camel DET
          [bb-azúurag   t-ə-séeɣaɣ-an   ka].
          IMPERF-be.free   F-PL-season.kind-PL   LOC
          I know that there is no camel that is left free during hot
          season.

      b) wártilla   bor(á)   aɣo [(ə)n-sə́꞊bun]
          there.is.not person   DET EXM-NEG.IMPERF꞊die
          Nobody is immortal.

      c) wártill(a) aɣo [bbáaɣa   s(a)   ay꞊n
          there.is.not DET want   COMP   3s꞊GEN
          t-a-múṣek-k   a꞊tə-n(á) a-ffó   se.]
          F-SG-milking.animal-F.SG 3s꞊FUT-give SG-one   DAT
          there is no one who wants to give his livelihood to
          someone else.

The last example shows no head noun.

4.5.2.2   *Relativization with* ho *'this thing' and* né *'here'*

The noun *ho* 'this thing' consists of the neutral noun *he* 'thing' and the determiner *o*, so it is a definite entity (4.1.3.5). However, *aɣo* never

occurs following *hó*, any RC follows *hó* immediately unless a demonstrative (*sé*) is present. Likewise, *né* is never followed by *aɣo*.

(207) a) *əndár a꞊bbáy hó   [báar(a)   a꞊se*
  if   3s꞊know thing.DEBR be.in   3s꞊DAT
  aláxar]   a꞊sə-d(á)   áa꞊se he yibrár-an.
  next.world 3s꞊NEG.IMPERF-do 3s꞊DAT thing be.bad-ADJZR
  if she had known what was in the next world for her, she would not have done anything bad to him (her husband).

  b) *Ci   na   hó   [ni꞊bbáaɣa]?*
    QST be   thing.DEBR 2s꞊want
    what do you want? *(lit.* What is the thing you want?)

  c) *a꞊nə-dá   hó   (sé)   [a꞊ccí].*
    3s꞊NEG.PERF-do thing.DEBR (DEM.FAR) 3s꞊say
    he did not do what *(lit.* the thing that) he said.

Example (c) above was not accepted by all informants without the presence of *sé* DEM.FAR.

The locative adverb *né* 'here' can also be relativized.

(208) a) *ay꞊n biid-én   ne   [k(a) i꞊ddumb(ú) áŋga].*
  3s꞊GEN bone-PL   here LOC 3p꞊cut   3s꞊EMP
  its bones were there where they had killed it.

  b) *...har né   [k(a) i꞊hóoɣay].*
    until here LOC 3p꞊spend.day
    ...until there where they spent the day.

  c) *né   [k(a) ary-én   i꞊kkáy]   waʃ-én   i꞊báara*
    here LOC water-PL   3p꞊stop   dirt-PL   3p꞊be
    there where the water stops (running) is dirt.

For other uses of *né* 'here' see (4.4.2.1).

4.5.3 Pronominal human referents

In the relativization of pronominal human referents (including speech-act participants) a linking marker is used. In this case, the particle *nó(o-da)* 'there(-INT)' is used. Constructions with *aɣo* are considered ungrammatical, i.e., **nin aɣo dárɣal ni꞊mmó (a)-se* (2s.EMP DET be.blind 2s꞊hear 3s-DAT) 'you who are blind, heard him.' is not a possible sentence.

The following table lists the attested forms with *nó(o-da)*

(209)　　　Human referent markers

	singular	plural
1st	*aɣay nóo-da*	*áari nóo-da*
2nd	*nín nó(o-da)*	*ándi nó(o-da)*
3rd	*áŋga nó(o-da)*	*íŋgi nó*

According to our informants, the presence of the optional parts would insist either on the presence on the scene of the person (3rd person) or insistence (2nd persons). The RC following this marker has the same structure as other restrictive RC types.

Examples

(210) a)　　*aɣáy　　　nóo-da　　　[jáw　ana]*
　　　　　　1s.EMP　　　there-INT　　help　2s.DAT
　　　　　aɣa=bbáaɣa ní=n　　　jáw　　　　t-oo-las-t̠.
　　　　　1s=want　　　2s=GEN　　help.VN　　F-SG-do.again-F.SG
　　　　　I who helped you, I want your help in return.

　　　b)　　*nín　　　nó　　[kár　aɣáy] ən=tə-kó　　kássaw*
　　　　　　2s.EMP　　there　hit　　1s.O　2s=FUT-go　　prison
　　　　　you who hit me will go to prison.

　　　c)　　*áŋga　　　nó　　[b-záy]*
　　　　　　3s.EMP　　there　IMPERF-steal
　　　　　áŋga　　　záy　　　a=kkeedí.
　　　　　3s.EMP　　steal.VN　　3s=be.on
　　　　　he who steals, he is accused of stealing.

　　　d)　　*áari　　　nóo-da　　　[bb-ə́ʃɣəl]　ar=sə-ŋá.*
　　　　　　1p.EMP　　there-INT　　IMPERF-work 1p=NEG.IMPERF-eat
　　　　　we who are working don't eat.

　　　e)　　*ándi　　　nó　　[b-ŋá]　　　andə=sə-yíʃɣəl.*
　　　　　　2p.EMP　　there　IMPERF-eat　2p=NEG.IMPERF-work
　　　　　(and) you who eat are not working.

　　　f)　　*íŋgi　　　nó　　[kun(á)　　á-ʃʃaɣal]*
　　　　　　3p.EMP　　there　find　　　SG-work
　　　　　íŋgi　　　nə-ddə́ww-ət
　　　　　3p.EMP　　FOC-be.glad
　　　　　they who found work, it's them who are happy.

In the corpus another use (topicalization) of independent pronouns referring to human referents with *nóo-da* is found (see 4.7.1.2 ex (240)).

Songhay of Gao has an optional /no/ particle followed by /ka/ for subject focus (or /no ma/), while /no/ is obligatory for non-subject fronted constituents followed by a clause (Heath 1999b:132). This focus marker may be at the origin of this particular form when pronominal human referents are relativized.

4.5.4 *Non-restrictive relativization with* sa

A non-restrictive relative clause typically adds new information to the head noun. The RC itself is structurally a complete clause that is preceded by *sa* COMP (complementizer). *sa* is also used in complement clauses of verbs (4.3.10.3) and as topic marker in equational clauses (4.7.1.1). The RC follows the noun it modifies immediately unless there is a postposition following it or a restrictive RC modifying the same head noun. This construction is the only possible way to relativize possessors.

4.5.4.1 *Subject and object*

In the first example, the subject of a transitive clause is relativized. The function of the relative clause is not to identify which woman he married, but to give additional information about her:

(211) *a=zzáw   surgóy   fo*
       3s=take   woman   IND
       sa   [íttilla záɣri a=tə-ŋá   i-múṇas   iʃʃá].
       COMP   each day 3s=FUT-eat PL-camel   seven
       he married a certain woman, who (once they were
       married) used to eat seven camels a day.

The following example also shows the subject of a transitive clause that is relativized. The relative clause gives additional information about the specific place called 'Indeliman':

(212) *Iḍéeləman dáɣ   ka   s(a)*
       loc.name   too   LOC   COMP
       [a=yyagór   t-ə-mə́-zdaɣ].
        3p=be.bigger   F-PL-RECI-dwell
       (they live) also in Indeliman, which is bigger than the
       (named) dwelling places.

In the following example, the relative clause introduced with *sa* has embedded another relative clause that modifies the quantifier 'one' from which it is separated by the negative existential *-ʃi* (see more examples in4.5.2.1).

(213)   *a꞊mmáy   ay꞊n   izacén-an   kaaɽáɖ*
               3꞊own   3s꞊GEN   young.man-PL   three
               sa   [a-ffó   a꞊ʃʃí꞊i
               COMP SG-one   3s꞊be.not꞊3p
               [b-déeraw   a-ffó   (ə)nda   naná]].
               IMPERF-have.in.common SG-one   with   mother
               he had three sons, of whom there was not one who had the same mother. (Lit: one was not that had in common the mother with another)

The next examples illustrate the regular structure when the non-restrictive RC contains a focalized subject. Generally it is the object of the main clause that is relativized on but a shift of focus happens inside the RC. The object of the main clause is always marked with *aɣo* DET that is followed by *sa*. This resembles the regular restrictive RC construction where a demonstrative-like marker follows the head. However, this type of *sa* RC always adds new information to the NP. The pragmatic effect of this kind of RC is to direct the hearers' attention from the subject of the main clause to the subject of the relative clause, i.e. 'young man' or 'people' in the examples below.

(214) a)   *a꞊háaṣi-an   íizac(e)   aɣo*
               3s꞊look-ALL   young.man   DET
               s(a) [áŋga   nə꞊mmáy   t-a-bákar-t]...
               COMP 3s.EMPH FOC꞊own   F-SG-ewe-F.SG
               he looked towards the young man, that who owned the ewe...

     b)   *a꞊tə-yídhəl bor-én   əndaɣo*
               3s꞊FUT-help person-PL   DET.PL
               s(a) [íŋgi   nə-b-húrr(u)   alxér]
               COMP 3p.EMP   FOC-IMPERF-take peace
               he will help the people, those that seek peace.

The relativized constituent in the following example is an unmarked indirect object (see 4.3.8). The relative clause introduced with *sa* gives additional information about the woman who has already been identified earlier in the story. (For the irregular behavior of *ná* OPP see 4.1.3.6):

(215)   *wáy   ná   aɣo*
              woman   OPP   DET
              sa   [t-a-cídaw-t   a꞊b-s-əkn(á)   aṛmǝ́ṇi]
              COMP F-SG-bird-F.SG   3s꞊IMPERF-CAUS-show   suffering
              a꞊ccí...
              3s꞊say
              the other woman, to whom the small bird was showing
              suffering, said...

4.5.4.2   Possessor relativization

Possessors cannot be relativized by means of the regular restrictive strategy described above. Instead, relativization with *sa* COMP is used. Although most examples of this type in the corpus contain non restrictive clauses, it may also appear with restrictive clauses. It thus constitutes an exception to the generally non restrictive semantics of RC constructions with *sa*.

In the first example, the RC consists of an equational clause. The possessive pronoun *ay꞊n* 'her' is correlative with the head noun that is an indirect object of the main clause.

(216)   *a꞊b-ʃ-íʃkən-an   áy꞊n   nana   se*
              3s꞊IMPERF-CAUS-greet-ALL   3s꞊GEN   mother   DAT
              s(a) [ay꞊n   mán Amínata].
              COMP 3s꞊GEN   name prop.name
              he greets his mother, whose name is Aminata.

In the following example, the *sa* strategy is found with an indefinite but established referent to which the possessor refers. In this case, *sa* introduces a restrictive RC.

(217)   *baŋgú   [s(a) ay꞊n   míy(a)   a꞊yyibrár]*
              well   COMP 3s꞊GEN   mouth   3s꞊be.bad
              waʃ-én   i꞊bb-éd   áa꞊ka
              dirt.kind-PL 3p꞊IMPERF-return   3s꞊LOC
              a well that has a bad opening (without wall), dirt falls in it.

In the following example, the subject of the non restrictive RC ('her house') contains the possessive pronoun that correlates with the head noun. A restrictive RC follows the same head noun immediately.

(218) maan(á)   ə́mmək   ayó (ə)nda   ar̲tə-guná
       where   manner   DET with   1p̲FUT-see
       [wáy   báar(a)   i-ʒínn-an],
       woman   be.in   PL-sky-PL
       s(a) [ay̲n húgu   a̲f-keedí   t-a-záyan-t ən
       COMP 3s̲GEN house   3s̲IMPERF-be.up F-SG-mast-F.SG GEN
       míya kuk(ú)-an]?
       end be.long-ADJZR
       how are we going to see the woman in the sky, whose
       house is up at the end of a long mast?

The constituent that contains the possessive pronoun that correlates
with the head noun may be fronted. When this happens, a resumptive
pronoun appears in the relative clause in the normal position of the
constituent. In the following example, 'his eyes' is fronted and
immediately follows *sa*. The resumptive pronoun clitic *íi̲* occurs in its
normal place, immediately preceding the postposition *ka*.

(219) aya̲ggun(a)   a-ʒáaʒib s(a)
       1s̲see   SG-phantom COMP
       [ay̲n mó-(e)n húur(u)   a̲b-d(á)   íi̲ka]
       3s̲GEN eye-PL   fire   3s̲IMPERF-do   3p̲LOC
       I saw a phantom, in whose eyes fire was burning.

Contrast the following examples, in which the constituent that
contains the co-indexed possessive pronoun occurs in its normal
position in the relative clause:

(220) aya̲ggun(a)   [a-ʒáaʒib dá   ʃ-íkʃi̲d]   sa
       1s̲see   SG-phantom do   CAUS-fear.VN   COMP
       [huur(ú) á̲b-d(á)   áy̲n   mó-(e)n   ka]
       fire   3s̲IMPERF-do   3s̲GEN   eye-PL   LOC
       I saw a phantom that causes fear, which had fire in his
       eyes...

In the following example the object of 'you want', present as a verbal
noun, is relativized. The idiom *da tanəfust bora se* 'to tell somebody a
story' (do story person DAT) can only be relativized on this way. The
verb (to do) is nominalized and with the possessor refers to the story.

(221)   aywa,   d(a) aɣáy t-á-nəfus-t   aɣo
          well   do   1s.IO F-SG-story-F.SG   DET
          sa [nì꞊bbáaɣ(a)   ay꞊n   dá]]!
          COMP 2s꞊want   3s꞊GEN   do.VN]
          so, tell me the story [on tape], that which you wanted to
          tell (me)!

4.6   Negation particles

In the chapter on the MAN (Mood-Aspect-Negation) markers the
basic negations on the verb were presented (4.2.4). This section is
dedicated to complex negations that are formed with a MAN marker
negation on the verb and an additional particle in the clause. There
are no structural similarities that link them all to one particular class, it
is more the semantic feature of 'negation + X' that groups them
together. 'never' 'not at all' and 'except' are concepts found with this
construction. 'Nobody' and 'nothing' can be traced to negative
clauses that are now used in the nominal slot of the clause. Some of
the particles need some other kind of negated form in the clause to
be interpreted correctly.

4.6.1   kəlá ... nə- 'never'

The particle *kəlá* 'once' together with the negation on the verb, results
in the reading 'not once' with the free translation 'never'.

The examples in the corpus are all combined with the NEG.PERF *nə-*.

(222) a)   ...kəlá   aɣ꞊nə-mó
            once 1s꞊NEG.IMPERF-hear
            t-a-sə́wəl-t   ən   ṭáatab   se.
            F-SG-whet-F.SG   GEN   sew.NV   DAT
            (since I live) ... I have never heard that one sews with a
            stone.

      b)   kəl(á)a꞊nə-hun(ú)   ay꞊n   húgu daw
            once 3s꞊NEG.PERF-leave.from   3s꞊GEN   tent LOC
            he has never left (the area) around his tent.

Without the negation it is frequently used in the introductory sentence
to a folktale with a free translation 'There was once...'

(223)   *i̸ccí   kəlá wáy   fó   n(e) adí...*
        3p꞊say   once woman   IND place ANA
        there was once this woman... (lit: it is said once a certain woman there ...

The particle may be repeated in this position.

4.6.2 nə- ... fow *'not at all'*

The particle *fow* is always at the end of a negated clause and set off with a short pause from the rest of the utterance. It intensifies the negated fact of the utterance. It is also found with other negations on the verb (e.g. 'never') and can intensify them. In context, even by itself, the particle can intensify a negated fact. This use is illustrated further down in example (227).

(224) a)   *aɣ꞊nə-fəlás꞊a   fów!*
          1s꞊NEG.PERF-believe꞊3s   at.all
          I don't believe it at all!

      b)   *kəlá bor-én   i̸-nə-gun(á)   áy꞊n ci   fów!*
           once person-PL 3p꞊NEG.PERF-see 3s꞊GEN likeness   at.all
           never ever have people seen its (Hare's intelligence) likeness.

4.6.3 NEG + har *'except'*

A semantically weak exception is encoded with *je* 'only' discussed below (4.7.4.4). The preposition *har* 'until', together with a negation on the verb or a verb with a negative meaning, conveys the exception that could also be translated as 'not but'. The first example below is with the plain negation on the verb (for the inversion of PRN꞊*ənda* followed by a nominal constituent see 3.2.7.11.2.2). The second example shows the use with *yába* 'lack'. This verb can be read as a negation for the subordinate finite verb. *yába* is interpreted with an impersonal 3s clitic. The last example shows *har* 'until' between clauses and *har* 'except' preceding a noun.

(225) a)   *a꞊nə-yíkkəl-kat   í꞊(ə)nda jé   har*
          3s꞊NEG.PERF-lift-VEN   3p꞊with   only until
          i-mə́ẓẓur-an.
          PL-horse.dropping-PL
          he served them nothing but droppings.

b) *a꞊yyába*   *s(a)*   *aɣa꞊b-guná*   *har*
    3s꞊lack   COMP   1S꞊IMPERF-see   until
    í꞊n   *hanj-én*   *ənd(a)*   *i꞊n*   *t-ə́-lank-an*
    3p꞊GEN   ear-PL   and   3p꞊GEN   F-PL-tail-PL
    I cannot see but their ears and their tails = I can only see
    their...

c) *a꞊b-ŋ(a)꞊í*   *har*   *á꞊bbeen꞊i*
    3s꞊IMPERF-eat꞊3p   until   3s꞊finish꞊3p
    har   *a-fə́dda*   *d(a)*   *asénda.*
    until   SG-one.only   INT   DEM.FAR
    he (Jackal) was eating them (young warthogs) until he
    had finished them except for only that one.

Also consider the examples (231)c and (234)b below.

When the exception is an action the complement clause particle *sa*
has to be present after *har*.

(226) a) *hímay*   *ən*   *íigət*   *a꞊sə́-mmay*   *alʕib ká*
          wash.VN   GEN   excess   3s꞊NEG.IMPERF-have   fault LOC
          har   *sa*   *(ə)n꞊tə-hímay*   *héw ká.*
          until   COMP   2s꞊FUT-wash   wind LOC
          there is no danger in washing a lot except that you wash
          (yourself) in the wind.

b) *a꞊ccí*   *wə́rtilla*   *jé*   *hár*   *s(a)*
    3s꞊say   there.is.not   only   until   COMP
    a꞊tə-yíħkəm   *áy꞊n*   *aru ká.*
    3s꞊FUT-reign   3s꞊GEN   man LOC
    she wanted absolutely nothing but reign over her
    husband.

The following dialogue illustrates several of the negations discussed
above in a short exchange.

(227) Q: *ák*   *kəlá*   *ni꞊gguná*   *Bamakoy?*
          QST   once   2s꞊see   loc.name
          Have you ever seen Bamako?

A: *kəláakəla!*
    no
    No!

Q: *ənda Gawgaw?*
    and loc.name
    And Gao?

A: *kəláakəla kəlá aɣ⸗nə-guná   hár Mə́nəka.*
    no   once 1s⸗NEG.PERF-see until loc.name
    No, I never saw (anything else) but Menaka.

Q: *Yamay?*
    loc.name
    Niamey?

A: *fów fów Mə́nəka   jé*
    at.all at.all loc.name   only
    Not at all, not at all, only Menaka

4.6.4 NEG + wala *'not even'*

The preposition *wala* together with a negation on the verb can be translated as 'not even'. The negation is crucial for this reading.

(228) a) *a⸗nə-guná   wal(a)   á-ffooda*
          3s⸗NEG.IMPERF-see without   SG-one
          he didn't even see one.

     b) *a⸗sə́-bay   t-a-wál-an   ka   wala*
          3s⸗NEG.IMPERF-know   F-SG-language-PL LOC   without
          h(e) a⸗ccéena
          thing 3s⸗be.small
          he doesn't even know a little bit of (other) languages.

4.6.5 NEG- .... ʃeddí ~ ceddí *'not yet'*

The particle *ʃeddí ~ ceddí* has several functions, all of them related to time. Examples for preverbal 'yet' are found in 4.8.4.7. When following a negated verb, the construction NEG-verb *ʃeddí* is translated into English by 'not yet', e.g.

(229) a) *a⸗nə-tén   ʃeddí*
          3s⸗NEG.PERF-arrive yet
          he hasn't arrived yet.

     b) *aɣ⸗n   a-lámad   a⸗nə-yimád   ʃeddí.*
          1s⸗GEN   SG-learn   3s⸗NEG.PERF-be.complete yet
          I have not yet finished learning.

     c) *báarar   a⸗sə-báy   á-bbaṣ   ceddí.*
          child   3s⸗NEG.IMPERF-know   SG-chew   yet
          the child cannot yet chew.

4.6.6   Negative constructions with ʃí and wértilla

Both particles were introduced in the section about existential expressions (4.4.3). In this section we will discuss how they are used on clause level to negate items or actions.

4.6.6.1   h(e) a=ʃʃí / bor(a) a=ʃʃí 'nothing/nobody'

To understand the functioning of the negation we need to understand the positive statement first. A non-specified entity is often represented by the word *hé* 'thing'. This may refer to a human, animate or inanimate entity. In the following example the positive and negative statement are given.

(230) a)   *a=ccí   hé*
      3s=say   thing
      he said something.

   b)   *a=nə-cí   hé*
      3s=NEG.PERF-say   thing
      he said nothing

However, when the part 'nothing' is emphasized a different construction is used. The negative existential copula *ʃí* together with *hé* 'thing' is fronted as a unit.

(231) a)   *h(e) a=ʃʃí*
      thing 3s=not.be
      there is no thing = nothing

   b)   *[h(e) a=ʃʃí]   a=cc(i)   áa=se*
      thing 3s=not.be   3s=say   3s=DAT
      she said nothing to him.

   c)   *[h(e) a=ʃʃí]   b-ə́li-kat   íi=ka   har…*
      thing 3s=not.be   IMPERF-go.out-VEN 3p=LOC   until
      nothing sticks out of them except… [Lit: nothing there is that sticks out of them except…

The whole clause behaves like a noun that can be preposed to a clause (b) when functioning as a direct object, or be followed by a relative clause (c).

Parallel to the construction with *hé* 'thing' the noun *borá* 'person' can express 'somebody' or 'nobody'.

(232) a) *aɣa=gguná borá*
        3s=see   person
        I saw somebody.

    b) *aɣ=nə-guná   borá*
        1s=NEG.PERF-see   person
        I didn't see anybody. = I saw nobody.

When 'nobody' is the topic, it must be expressed with the existential copula *ʃí*. Any comment following 'nobody' is a relative clause modifying 'person'.

(233) a) *bor(á)   a=ʃʃí*
        person   3s=be.not
        there is no person = nobody

    b) *[bor(á)   a=ʃʃí]   máy   i-múṇas*
        person   3s=be.not own   PL-camel
        ənd-áŋga   wij(i) I-dáksahak.
        with-3s.EMP is.not PL-ethnic.name
        nobody   owns   camels   except   the   Idaksahak.
        (Lit: a person does not exist who owns camels if it is not the Idaksahak).

    c) *[bor(á)   a=ʃʃí]   léelaw   ənd(a)=á.*
        person   3s=be.not talk   with=3s
        nobody talks with him.

4.6.6.2   wə́rtilla *'there is not'*

This particle was introduced in 4.4.3. Here some special uses are examined. Together with *hé* 'thing' and *borá* 'person', the particle *wə́rtilla* conveys 'nothing' and 'nobody', respectively. As with the *ʃí* copula, these are pragmatically strongly marked entities.

(234) a) *wə́rtilla   he   b-máazal...*
        there.is.not thing IMPERF-be.sent
        there is nothing that happens...

    b) *wə́rtilla   borá   nə=mmáay=a   har*
        there.is.not person   FOC=own=3s   until
        ándi nó   báara(=a?) yízdaɣ   áa=ka
        2pO there exist(=3s?)   live   3s=LOC
        there is nobody [focus] who owns it (land) except you there who are (in it?), live in it.

wə́rtilla sometimes takes a complement clause.

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(235)   wə́rtilla   s(a) alḥakúmat a=kkó
        there.is.not COMP government 3s=go
         (ə)nd(a)   a-hándag káamil
        with   SG-place   all
        ənd-áŋga wij(í) ənd(a)   áy=n   kó-(e)n
        with-3s.EMP is.not with   3s=GEN   owner-PL
        it does not happen (exist) that the government goes to
        every place except with its owners.

The logical parallel to this construction with the negative copula ʃí, a=ʃʃí
sa 'it is not that', does not seem to exist.

4.7   Information Structure

In this chapter the strategies for topicalization, focalization and
interrogatives are described. In addition some particles are presented
that have emphasizing or other discourse functions.

4.7.1   Topicalization

There are two different strategies for topicalization on clause level.
One is used for non-verbal constructions and the other for clauses
with verbs.

4.7.1.1   Equational constructions

The constituent that is topicalized in an equational construction is
marked with the COMP sa when it is an independent (EMP) pronoun.
When it is a noun it is followed by the corresponding (sg or pl)
independent pronoun and the sa COMP marker.

The following examples show different contexts: a) plain equational
clause, b) with a question particle, c) with additive, d) with additional
information to the complement and e) with a plural referent. The bar /
indicates that a pause in the flow of the utterance happens at that
point.

(236) a) áŋga   s(a)   a-mənóokal.
          3S.EMP COMP   SG-ruler
          it was him who was the chief.

     b)   áa-har   /   ák áŋga   sa tárra nn ízzay
          SG-lion   QST 3S.EMP   COMP bush GEN son
          the lion [topic], is it him who is the 'son of the bush'?

c) *áŋga   dáɣ /   áŋga   s(a) íizace*
    3s.EMP   too   3s.EMP COMP youth
    he too, he was also a young man (of good qualities).

d) *áŋga   s(a) ay꞊wáni   t-a-báɣor-t*
    3S.EMP   COMP 3s꞊of   F-SG-wealth-F.SG
    hé   yíɣləl-an
    thing be.eternal-ADJZR
    (earth) it's this its very own wealth, (it is) a thing that lasts.

e) *Iḍéeləman /   íŋgi   s(a) ay꞊n   gánda*
    loc.name   3p.EMP COMP 3S꞊GEN land
    (other place names...) I., it's them that are his land.

4.7.1.2   Nominal constituents

Constituents that are topicalized in clauses containing a verb have no special marker. They are preposed to the clause and set off with a short pause (marked as /) before the clause itself is uttered.

When topicalized subjects are pronouns, they are preposed to the clause in the independent form.

(237)   *nín /   ni꞊ddiní-kat árə-n   ṭaamú.*
        2s.EMP   2s꞊take-VEN   1p-GEN   slave

        áari /   arə꞊ssə́-nnə-frən-kat   arw-én.
        1p.EMP   1p꞊CAUS-RECI-be.chosen-VEN   man-PL
        (as for) you, you took our slave, (but) we, we have chosen (real) men.

When objects are fronted an in situ resumptive pronoun appears.

(238) a) *báarar /   bukáari   n   sə́gni   a꞊f-keed(i)꞊á*
          child$_i$ turban.kind GEN   indigo 3s꞊IMPERF-be.on꞊3s$_i$
          the child, there is indigo of the turban on it.

      b) *ayá꞊n   cay /   t-aa-ḍás-t   a꞊kkaar꞊á*
          1s꞊GEN   leg$_i$ F-SG-tire-F.SG   3s꞊hit꞊3s$_i$
          my leg, it went to sleep. (*Lit:* fatigue hit it)

      c) *bor-én   áyda /   ən꞊sə-kó*
          person-PL$_i$ DEM.PROX 2s꞊NEG.IMPERF-can
          ni꞊b-ʒí-mmiʒ(i)꞊i
          2s꞊IMPERF-CAUS-be.separated꞊3p$_i$
          these people, you cannot separate them.

The topicalized constituent may be reinforced by an emphatic pronoun followed by the intensifier *dá* 'precisely, exactly' (239), *nóo-da* 'there-precisely' (240)a-c) or the shorter form *nó* 'there' (240)d) mostly with plural referents.

(239) a) *i-s-úudar / íŋgi   dá / h(e) a=ʃʃí*
PL-INST-live_i 3p.EMP_i INT   thing 2s=not.be
(ə)n-tə-s-ə́sħ(a)=i   har   t-á-zdək-k.
EXM-FUT-CAUS-be.strong=3p_i   until F-SG-be.clean-F.SG
food, as for it, there is nothing that makes it strong except cleanliness.

b) *alíkaf /   áŋga   dá / a=báar(a) addə́wəl   fó.*
horse.saddle_i 3s.EMP_i   INT   3s_i=be   country   one
As for the saddle, it was in another country.

c) *t-ə́-mgad-an /   íŋgi   dá / íŋgi   kaaṛád*
F-PL-girl-PL_i   3p.EMP_i   INT   3p.EMP_i   three
As for the girls, they were three.

(240) a) *aɣáy   nóo-da   aɣa=bb-ogá   huurú...*
1s.EMP   there-INT   1S=IMPERF-perceive   fire
I here, I see a fire (in the distance)...

b) *aɣá=n   nana   nin   nóo-da   ni=n   mó…*
1s=GEN   mother 2s.EMP there-INT   2s=GEN   face
my mother, you there, your face …

c) *s(a)   áŋga   nóo-da   a=ddiŋ(á)-an*
COMP   3s.EMP   there-INT   3s=forget-ALL
áy=n   kərtə́ba   baŋgu   bé
3s=GEN   trousers   well   LOC
(he remembered) that, he there, he (had) forgot(ten) his trousers at the well.

d) *i-kúufaṛ   íŋgi   nó   i=ddá   hó   sé*
PL-European 3p.EMP there   3p=make thing.DEBR DAT
aníyat
attention
Europeans, they there (as for them), they pay attention to this.

4.7.1.3   Verbal nouns

Verbs can be topicalized by preposing the corresponding verbal noun to the beginning of the clause and substituting the main verb with the light verb, *kás* 'to be' or *dá* 'to do'.

(241) a)   *a-ṇágad /*
            SG-put.turban
            a꞊kkás   Idáksahak ən   t-á-ggas-t.
            3s꞊be   name   GEN   F-SG-guard-F.SG
            putting on a turban is a custom of the Idaksahak.

     b)   *a-ṣáṭək   ar꞊n   i-bíyaɣ   i꞊ddá*
           SG-be.dried.up 1p꞊GEN   PL-water.skin 3p꞊do
           zə́rooda   a꞊ss-ə́rmaɣ   áari.
           today   3s꞊CAUS-have.fear 1p.O
           our water skins are so empty today that this makes us afraid. (*Lit:* the drying up our water skins do ...)

     c)   *á-hoora   a꞊dd(a)   íi꞊se   har   a꞊ṭṭáaw꞊i*
           SG-pursue 3s꞊do   3p꞊DAT   until   3s꞊reach꞊3p
           baŋgu   bé.
           well   LOC
           he pursued them (by following their footprints) until he reached them at the well.

In comparative constructions the quality is given as a verbal noun and so constitutes the topic of the clause. Structurally this is the same as the above clauses except for the use of 'be more' instead of the 'be' and 'do' verbs.

(242)   *ay꞊n   a-fəlcə́qu   a꞊yyagór   ná   aɣo wáni*
           3s꞊GEN   SG-be.flat 3s꞊be.more   OPP DET of
           this (receptacle) is flatter than that one (*Lit:* its flatness is more than...)

4.7.2 Focalization

Under focalization we understand that one constituent of a clause is highlighted and marked by syntactic means as the important information in this clause.

Syntactic focalization in Tadaksahak is attested for NPs (including adverbials), PPs and verbs.

The focalized constituent is fronted to the position immediately before the verbal word. There is no special marker for this constituent except for the subject. In addition to the left movement the constituent is uttered with a higher pitch than an undisplaced constituent.

(243)   *aɣ=sə-hurrú*   *taɣm-én*
         1s=NEG.IMPERF-look.for   sandal-PL
         í-səlsa   *aɣa=b-hurrú*
         PL-clothe   1s=IMPERF-look.for
         I am not looking for sandals, it's clothes I am looking for.

4.7.2.1   Subject focalization

When a subject is focalized a particle *nə-* FOC (focus) (*ən-* before CV-shaped MAN markers) replaces the regular subject clitic. While similar to the extraction marker in relative clauses (see 4.5.1), its syntactic behavior is not identical. The extraction marker only occurs in subject relative clauses that contain a verb form with a MAN marker of the shape CV-. The focus marker, on the other hand, also appears with unmarked perfectives (e.g. (244)b).

Subject pronouns that are focalized take the independent form of the pronoun. As with focalized nouns, in such cases the FOC particle is inserted before the verb. Examples of pronouns in focus are given in (244) and examples of nouns in focus are given in (245)

(244) a)   *aɣáy nə=b-d(á)=a*   *aɣ=n*   *t-í-nʒar*   *ka.*
           1s.EMP FOC=IMPERF-do=3s 3s=GEN   F-PL-nostril   LOC
           it's me who puts it in his nostrils.

      b)   *nín*   *nə=yyílmən=a.*
           2s.EMP   FOC=promise=3s
           it's you who promised it.

      c)   *áŋga*   *nə=hun(ú)*   *adínit*   *jinjiná*
           3s.EMP   FOC=leave.from   world   first
           it's him who died first.

      d)   *áŋga nə=f-káw*   *haamú*   *biid-én*   *be*
           3s.EMP FOC=IMPERF-take.from meat   bone-PL   LOC
           it's him (dog) who takes meat from (on) the bones.

      e)   *áŋga*   *nə=dduwá.*
           3s.EMP   FOC=be.better
           it's this (action) that is good/better.

f) *áari*   *nə꞊zzáw-kaat꞊a.*
    1p.EMP   FOC꞊take-VEN꞊3s
    it's us who brought it.

g) *ándi*   *nə꞊dd(á)*   *áa꞊se*   *h(e) adí*
    2p.EMP   FOC꞊do   3s꞊DAT   thing ANA
    it's you (pl) who did this to him.

h) *íŋgi nə꞊ssúr꞊a*   *mán aɣo óod(a)*   *Áffud wáni.*
    3p.EMP FOC꞊put.on꞊3s   name DET   DEM.NEAR   loc.name of
    it's them who gave it this name of Affud.

i) *áŋga*   *(ə)n꞊tə-soorá*   *cígooda.*
    3s.EMP   FOC꞊FUT-milk   tonight
    it's her who will milk tonight.

(245) a) *baarí n*   *í-ʃkar-an*   *nə꞊ss-əŋkəṛ-kat*
    horse GEN   PL-nail-PL   FOC꞊CAUS-get.up-VEN
    í꞊(ə)nda   *n*   *á...*
    3p꞊with   SEP   3s
    it was the horse's hooves that made it (storm) come up towards them.

b) *har*   *a-ffóo-da nə꞊ggorá-kat íi꞊ka*   *t-a-wíddi-t*
    until   SG-one-INT FOC꞊sit-VEN   3p꞊LOC F-SG-foal-F.SG
    except one that was left of them, a foal.

c) *h(e) áyda*   *nə꞊yyízl(a)꞊i*
    thing DEM.PROX   FOC꞊ occupy꞊3p
    it was this (an action) that occupied them

d) *wij(i) i-múnsuw-an*   *nə꞊zzáw-kat*   *aɣáy*
    is.not PL-food-PL   FOC꞊take-VEN   1s
    it is not (the existence of [good]) food that took me here

The particle may be cognate with the Songhay focus marker /na/ (Timbuktu). In Mainstream Songhay, this particle is found marking non-subject elements (Timbuktu), or is optional with subjects (Gao).

4.7.2.2   Object focalization

When an object is focalized, it is extracted from its original place and put before the verbal word. There is no focus marker following the constituent and after the inflected verb no resumptive object clitic marks the place of the extracted NP.

(246) a) *áŋga   aɣa꞊kkár.*
3s.EMP   1s꞊hit
it's him I hit.

b) *nín   aɣa꞊gguná*
2s.EMP   1s꞊see
it's you I saw.

c) *taɣm-én   aɣa꞊bbáaɣa*
sandal-PL   1s꞊want
it's sandals I want.

4.7.2.3   Focalization of adpositional complements

Adpositional phrases are fronted as a whole. The independent series of pronouns is used in these constructions.

Focus of dative complements

(247) a) *aɣáy /   nín   s(e)   aɣa꞊kkóy-kat.*
1s.EMP   2s.EMP   DAT   1s꞊leave-VEN
as for me [topic], it's for you [focus] that I came here.

b) *wiji   nín   se   aɣa꞊f-cí*
is.not   2s.EMP   DAT   1s꞊IMPERF-say
bor-én   aɣonda-nó yóṛu   wán-en   se
person-PL   DET.PL-there old.VN   of-PL   DAT
it is not to you [focus] I speak, (but) to those people of old times.

Note the syntax of the last example and compare it with (245)d) above where the particle *wiji* is posing the non-existence of the focalized constituent.

Focus of locative postpositions

(248) a) *húgu k(a)   a꞊ʃʃ-inʃ(á)꞊a*
house   LOC   3s꞊CAUS-put.down꞊3s
it's in the house [focus] that s/he put it down.

b) *áŋga   k(a) a꞊ss-ə́kkələl   har...*
3s.EMP   LOC   3s꞊CAUS-cry   until
in it (moment) [focus] it (bird) cried until...

c) *ni꞊n   a-hácet   b(e) a꞊zzumbú*
2s꞊GEN   SG-tent   LOC   3s꞊descend
it's on your tent [focus] that it (bird) landed.

d) *áŋga   be   komín-tan   i̠ddá*
   3s.EMP LOC   commune-PL   3p꞊make
   because of that [focus] communes are made.

f) *ándi   daw   aɣ-tə-zumbú*
   2p   LOC   1s-FUT-go.down
   it's at your place [focus] that I will stay.

Instrument focalization follows a different path. The expected fronting of a bare noun with preposition **ənda bundú* 'with a stick' is ungrammatical. Instead, a strategy similar to relative clause formation is used: the focused element is followed by the DET marker *aɣo* and the preposition switches place and follows the noun and the DET marker. This is found both with focused definite and with focused indefinite nouns. When the focused item is an independent pronoun, DET is absent and *ənda* follows the pronoun.

Focus of instrumental *ənda*

(249) a) *a-ná-z̠-may   aɣó (ə)nda   bor-én   i̠-f-ṭáaṭab*
      SG-ACT-CAUS-sew   DET with   person-PL   3p꞊IMPERF-sew
      it's with a needle [focus] that people sew.

   b) *he   (a)ɣo sénd(a)   ənda*
      thing   DET   DEM.FAR   with
      bor-én   i̠-b-wí   áa-har
      person-PL   3p꞊IMPERF-kill   SG-lion
      it's with that thing (a spear) [focus] people used to kill a lion.

   c) *éndal /   áŋg(a)   ənda*
      pricker   3s.EMP   with
      bor-én   i̠-bb-əʒwál   almán.
      person-PL   3p꞊IMPERF-brand.mark   herd
      a pricker [topic], it's with it [focus] that people brand the animals (of the herd).

4.7.2.4   Verb focalization

Verbs can be focalized when the need arises to insist that a different action than the one uttered is at the center of attention, e.g. A: "has she left?" B: "(No), she sleeps". When stative verbs are focalized, this expresses an intensification of the state.

Syntactically the bare verb stem is preposed to the inflected verb. Since verbs with Songhay cognates take no morphology when

nominalized they do not indicate if the verbal noun or the verb stem is fronted. However, stems of Tamasheq origin clearly show that the verb stem itself, and not a nominal form, is pre-posed to the inflected verb. The verbal noun of the first example is *á-ʃʃaɣal* 'work' < *yíʃɣəl* 'to work'. From (c) onwards the examples are from texts. The translation line shows the verb in capitals in order to indicate the focused element in the translation.

(250) a)   *yíʃɣəl*   *aɣa=bb-əʃɣəl*
           work   1s=IMPERF-work
           I am WORKING.

    b)   *t-á-ngud*   *ná*   *aɣo*   *dút*   *a=b-dút*
         F-SG-girl   OPP   DET   pound   3s=IMPERF-pound
         that girl is POUNDING.

    c)   *gun(á)*   *i=gguná*   *íizac(e)*   *asénda*   *n*
         see   3p=see   youth   DEM.FAR   GEN
         a-máʒgol...
         SG-beauty
         they SAW that young man's beauty... (and stayed)

    d)   *h(e)*   *a=ʃʃí*   *kun(á)*   *áari*   *ŋá*   *ar=sə-ŋá*
         thing   3s=not.be   find   1p   eat   1p=NEG.IMPERF-eat
         we are not ill, (but) we do not EAT.

    e)   *ak*   *nín*   *dárɣal*   *ní=ddarɣal?*
         QST   2s.EMP   be.blind   2s=be.blind
         as for you, are you totally blind?

    f)   *t-ə́-mgad-ən*   *asénda*
         F-PL-girl-PL   DEM.FAR
         kə́ṛəkəḍ   *i=sə-kə́ṛəkəḍ.*
         have.shame   3p=NEG.IMPERF-have.shame
         those girls, they have no shame at all.

    g)   *báy*   *ḷam*   *aɣ-sə-báy*   *ə́mmək*   *aɣó (ə)nda...*
         know   EXCL   1s-NEG.IMPERF-know   manner   DET   with
         I really don't know how…

The verb *báy* 'know' is also used with this structure to express the opposite of the expected 'really know/know very well'. This particular expression must be an idiomatic use: *báy aɣa=bbáy!* 'How can I know!'

4.7.2.5   Focalization of adverbial NPs

Like all the other constituents, adverbials are preposed to the verbal word when focalized. See examples below.

(251) a)   *tə́ffak   ar꞊tə-mə́qqəs   néeda.*
 tomorrow   1p꞊FUT-meet   here
 it's tomorrow (that) we will meet here.

   b)   *álməz   a꞊ttén*
 dusk   3s꞊ arrive
 it's at dusk (that) he arrived.

4.7.3 Interrogatives

Polar interrogatives (yes/no questions) are either declarative clauses with interrogative intonation or an optional yes/no question particle is present.

For another type of yes/no question, a tag question particle is used, that implies that the polar interrogative is answered by a confirmation.

WH interrogatives (content questions) are formed on the basis of two question words that are combined with other elements to form the whole array of needed question words.

4.7.3.1   Yes/no interrogatives

A polar interrogative may simply be an indicative clause with interrogative intonation, i.e. a raising tone contour towards the end of the utterance.

(252) a)   *nín   bəkáw   méɣ aŋgálos?*
 2s   jinn   or   angel
 are you a jinn or an angel?

   b)   *i-bóraɣ-an   i꞊kkán   ənda   nín?*
 PL-wild.date-PL   3p꞊be.sweet towards   2s
 do you like (to eat) wild dates?

Otherwise, one can use an interrogative particle that precedes the clause. Two forms are attested, both have cognates in Tamasheq. *ák* is used around Menaka and in the east while *igán* is found in texts from Talatayt.

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(253) a) ák   i-bíyaɣ   i̱=ttén
         QST   PL-water.skin   3p=arrive
         have the (donkeys with the) water skins arrived?

     b) ák   t-ée-laq-q   nə=ŋŋá   nín
         QST   F-SG-knife-F.SG   FOC=eat   2s
         is it a knife that cut you?

     c) igán ṭaamú   aɣa=kkás
         QST   slave   1s=be
         am I a slave?

4.7.3.2   Tag questions

This type of yes/no question presupposes that the statement with the added tag is true and will be confirmed. The tag element is *wiji* 'it is not', which is added at the end of a statement with rising question intonation.

(254)   Muss(a)   a=ttén   wiji?
         M.   3s=arrive   is.not
         M. has arrived, isn't it?

A very strong 'tag' is sometimes used to indicate the wish of the speaker to evaluate the truth of a statement.

(255)   ciimí wala   tangar-én?
         truth or   lie-PL
         is it true or false?

4.7.3.3   WH questions

There are only three basic question words that are used in combination with different nouns and 'be' connectors to express the usual expected array of information questions.

(256)   WH-question words
         ci   who/what
         man (+ ná)   'where' (< Songhay)
         man + N   'which' + noun (< Tamasheq)

ci is found with a 'be'-connector or a full verb as well as a temporal noun. The locative question is formed with elements from Songhay, while the second *man* is a loan from Tamasheq and is always followed by a noun.

4.7.3.3.1. ci *'who?/what?'*

This question word is the first element of the sentence unless it is preceded by a topicalized constituent. It can replace the subject clitic on a verb or must be followed by the 'be'-connector *na. Na* is always followed by a (pro-)nominal element that may be a cliticized 3s pronoun *=a* (or rarely *aŋga*, the independent pronoun), or the DET marker *aɣo* to refer to a human referent or *ho* (thing.DEBR) to a non-human referent. Subject and object positions can be questioned depending on the validity of the verb in the cleft sentence. When other complements are questioned, the corresponding PP is fronted. Examples and discussion to the different types are below.

When *ci* replaces the subject clitic it asks for the identity of a person (257) and is a subject question.

(257) a) *cí   mmáay=a*
          what own=3s
          to whom does he belong? (Lit: who owns him?)
          = who is he?

 b) *cí   bb-ə́ddər=a*
     what IMPERF-hold=3s
     who is married to her?

 c) *cí   (ə)b-zurú*
     what IMPERF-run
     who is running (close by)? [addressed to the person running who is not visible but heard]

The following examples show uses with the 'be'-connector *na*. This particle is not used elsewhere in the language. It is homophonous with the demonstrative that marks opposition (4.1.3.6). In this cleft construction, still asking for the subject position, a topic can be preposed to the question formula (258)b-c), and other discourse particles can intervene (259)(b). In the last examples (259)(e) a relative clause modifying the nominal element *didá* 'walking', changes the subject question to a 'manner' question.

(258) a) *cí   n(á)=a*
          what be=3s
          what's wrong? (lit: what is it?)

 b) *aséeħat   cí   n(á)(=a?)*
     health   what be(=3s?)
     health, what is it?

c) *aaru aɣo sé ... cí n(á)=a*
    man DET DEM.FAR   what be=3s
    that man ... who is he?

(259) a) *cí ná ay=n mân*
        what be 3s=GEN name
        what is his name?

b) *t-ée-far-t*
    F-SG-reward-F.SG
    cí ná zá ní=n t-ée-far-t
    what be LC 2s=GEN F-SG-reward-F.SG
    reward, so what is your reward?

c) *cí ná ay=n saffarí*
    what be 3s=GEN medicine
    what is the remedy against it? (Lit: what is its medicine)

d) *cí ná hé (a)ɣ(o) óoda?*
    what be thing DET   DEM.NEAR
    what is this (thing)?

e) *cí ná didá aɣo a=ddə́bət?*
    what be walk.VN DET 3s=can
    what (kind of) walking can it (tick) (do)?

cí ná with *aɣo* as the pronominal element always asks for a human referent. This conglomerate *ná aɣo* (OPP DET) 'that one' is widely used in other contexts (4.1.3.6) and is understood as having a human referent. Different grammatical roles are found with this construction: a) subject, b) direct object, and with the fronted *ənda* COMV a comitative complement in c).

(260) a) *cí ná aɣo ss-ə́gmi-kat ana*
        what be/OPP DET CAUS-send.BND-VEN 2s.DAT
        cíidaw aɣ(o) óoda?
        bird   DET DEM.NEAR
        who sent you to get this bird?

b) *ci ná aɣo ni=gguná sénda ka*
    what be/OPP DET 2s=see DEM.FAR LOC
    whom did you see there?

c) *cí ná aɣo (ə)nd(a) i=b-haŋgá*
    what be/OPP DET COMV 3s=IMPERF-accompany
    who are they accompanying? (= with whom are they 'walking')

Another object question is built by adding *hó* to the question formula followed by a cleft sentence. This question form assumes a non-human referent.

(261) a) *cí ná hó ni꞊b-hurrú*
     what be thing.DEBR 2s꞊IMPERF-look.for
     what are you looking for (lit: what is the thing you are looking for)?

   b) *cí ná hó d(a) áa꞊ka*
     what be thing.DEBR do 3s꞊LOC
     what is wrong with him? (lit: what is the thing that was put in him?)

Another question type adds a PP directly after the question formula to express 'from among'. Direct (a) and indirect object (b) can be questions this way. Again, *hó* refers to a non-human entity while *aɣo* stands for a human referent.

(262) a) *cí n(a) íi꞊ka hó ni꞊bbáaɣa*
     what be 3p꞊LOC thing.DEBR 2s꞊want
     which one of them do you want (lit: what is among them that you want)

   b) *cí n(a) íi꞊k(a) aɣo se ni꞊nn(á) á-ẓrəf*
     what be 3p꞊LOC DET DAT 2s꞊give SG-silver
     to which one of them did you give money?

There is one occurrence in the corpus where *ci* precedes the inflected verb immediately. This seems to be an abbreviated version of *cí ná hó* 'what'.

(263) *c(i) ándə꞊yyasák baŋgú méɣ sa...*
      what 2p꞊wish head or COMP
      what do you wish, the head or that...

4.7.3.3.2. cí (ná hó) be *'why?'*

The 'why?' question is expressed as a subtype of the 'what?' question. In a literal sense it means 'on what', (that thing on) which may imply a more abstract meaning 'on what grounds' and then conveys 'why?'. The first example below illustrates the physical meaning ('on what place') and the next examples are 'why?' questions. A long form (b, c) and an abridged form (d) are used.

(264) a)   *cí   ná   hó   be   ar꞊tə-ʃ-inʃá...*
                what be   thing.DEBR   LOC   1p꞊FUT-CAUS-lay.down.BND...
                on what will we lay down ... (our child)

       b)   *cí   ná   hó   be   ni꞊b-zóɣ*
                what be   thing.DEBR   LOC   2S꞊IMPERF-fight
                ənda ní꞊n   baba
                with 2S꞊GEN   father
                why are you arguing with your father?

       c)   *cí   ná   hó   be*
                what be   thing.DEBR   LOC
                hó   sé   a꞊ddá?
                thing.DEBR   DEM.FAR   3S꞊PERF-do
                why is that done?

       d)   *cí   bé*
                what LOC
                why?

A different construction is also found to express a similar meaning.

(265)   *cí   ná   áɣ꞊n   addalíl*
             what be   3s꞊GEN   reason
             for what reason? (= why?)

4.7.3.3.3. c(í) agúd *'when?'*

'When?' is made up of two elements, *cí* 'what' and *agúd* 'time'. *agúd* 'time' is also used by itself in the language in temporal adverbial clauses, e.g. *agúd aɣo k(a) a꞊yyúhu...* (time DET LOC 3s꞊be.born) 'when/at the time when he was born....'). Note that both nominal and verbal constituents can follow the expression.

(266) a)   *c(i) agúd aɣ꞊n   mán ən dá*
                what time 3s꞊GEN   name GEN do.NV
                when is his/her name giving ceremony?

       b)   *c(i)   agúd a꞊ddidá*
                what time 3s꞊walk
                when did he leave?

4.7.3.3.4. maana *'where (close by)?'*

Interrogative *maana* 'where' is used when asking for an item in the close vicinity of the speaker, in contrast to the second 'where?' question word (see below 4.7.3.3.5) which implies that the speaker

has no idea about the whereabouts of the item s/he is asking for. This question word is probably a fusion of the two parts *man* 'where' and *na*, the 'be'-connector. This analysis is corroborated by the fact that only nouns and pronouns can follow it. When an object of a ditransitive verb is questioned, *ho* 'this thing' follows the frozen 'be'-connector (see (267)c). The examples d) to f) show uses of this question word that go beyond the spatial meaning.

(267) a)   *maaná*   *ni=n*   *húgu*
           where.close 2s=GEN   tent
           where (around here) is your tent?

b)   *maaná*   *nín*
     where.close 2s
     where are you?

c)   *maaná*   *hó*   *aɣa=b-záw-kat*   *ándi* *se*
     where.close thing.DEBR 1s-IMPERF-take-VEN   2p   DAT
     where is what I bring you (regularly)?

d)   *maaná*   *ni=n*   *á-ʃʃaɣal*   *ən*   *ṭ-ə́-nfa*
     where.close 2s=GEN   SG-work   GEN   F-SG-use
     what is the usefulness of your work?

e)   *aɣ(o)* *óoda*   *za*   *t-a-nə́fus-t*
     DET   DEM.NEAR   LC   F-SG-story-F.SG
     maan(á) *áy=n*   *almáʕna*
     where.close 3s=GEN   meaning
     so this story, what is its meaning?

f)   *maan(á)* *áddabaara*
     where.close decision
     what shall we do? (= where is the decision?)

4.7.3.3.5. man ne *'where?'*

This construction asks for a location unknown to the person and at a further distance than the question word described above. The formula is directly followed by an (NP with) inflected verb. This is valid for verbs with a semantically locational complement (see 4.3.3). Example (c) with the verb *báara* 'be in' shows an additional oblique complement that is marked with PP *ka*. *man ne* can be followed by a fronted LOC postposition to express a starting point (from where), an aim (to where) or other oblique locations that must be marked with

the postposition *ka* LOC. This particular use is illustrated in example (e) and (f). Also the preposition *ənda* 'in the direction of' is found in this place with another type of movement verbs (g).

(268) a) *mán n(e) i̥=f-kó*
       where place 3p=IMPERF-leave
       where are they going?

   b) *mán ne ni̥=n   bor-én   i̥-bb-ə́zdaɣ*
       where place 2s=GEN   person-PL   3s=IMPERF-settle
       where do your parents live?

   c) *mán n(e) í̥=baara   gánda   ka*
       where place 3p=be   land   LOC
       where are they in the country?

   d) *mán ne k(a) ikkeení   (Bámakoy ka)*
       where place LOC 3p=sleep   loc.name LOC
       where (in B.) did they sleep?

   e) *mán ne   k(a) aɣa=ttáŋga-kat̥=í*
       where place LOC 1s=push-VEN=3p
       from where did I push them (camels) to here?

   f) *mán ne   k(a) andə=b-dá*
       where place LOC 2p=IMPERF-put
       andə=n   mó-(e)n
       2p=GEN   eye-PL
       where do you(pl) put your(pl) eyes? (in what…)

   g) *mán ne   (ə)nda   ni-bə́-boy*
       where place LOC   2s-IMPERF-move
       to(wards) where are you moving (camp)?

4.7.3.3.6. man ícet *'how much/many?'*

The entire phrase *man ícet* has been imported from Tamasheq. The term *ícet* 'quantity, measure' not only occurs in questions, but is also found in an 'augmentative' type construction with pejorative connotation (e.g. *ícet ən t-a-báʒnaw-t* /measure GEN F-SG-old.donkey-SG.F/ 'what a clumsy person'). *man ícet* is either used as a modifyer to a noun (b), or independently (a, c). When used in a market situation, *man ícet* 'how much?' is used to ask for the price and not for the quantity of the items on sale. This use is illustrated in a).

(269) a)   *man   ícet   (tamáati)*
             which quantity   (tomato)
             how much does it (tomato) cost?

   b)   *man   ícet   feej-án   a₌ddáy-an*
          which quantity   sheep-PL   3s₌deal-ALL
          how many sheep did he sell?

   c)   *man   ícet   ay₌n   i-wútay*
          which quantity   3s₌GEN   PL-year
          how old is s/he? (Lit: how many (are) his/her years)

4.7.3.3.7. man ə́mmək aɣo (ə)nda *'how?'*

The first two elements of this construction are from Tamasheq. In Tadaksahak *man ə́mmək* is obligatorily followed by the definite marker and *ənda* 'with'. This is syntactically a relative clause with *ə́mmək* as the modified head. Literally this means 'where is the manner with which...' followed by a fully inflected verb.

(270) a)   *man   ə́mmək   aɣó   (ə)nda*
             which manner   DET   with
             ar₌tə-né-m-aŋɣa   ənda bəkáw-yan?
             1p₌FUT-RECI-RECI-kill.BND   with   jinn-PL
             how are we going to fight the jinns?

   b)   *man   ə́mmək   aɣó   (ə)nda*
          which manner   DET   with
          aɣ₌tə-dá   h(e)   áyda
          1s₌FUT-do   thing   DEM.PROX
          how will I do this?

4.7.4   Other particles

There are a number of particles that are used for emphasis and other discourse functions.

4.7.4.1   ya *exclamation / surprise*

The particle *ya* expresses surprise or general emphasis. The particle is normally set off with a pause from the following material and does not need to be at the very beginning of a clause.

(271) a)   *...ya a꞊yyéd   áy꞊n   naná*
            EXCL 3s꞊return   3s꞊GEN   mother
           (Jackal killed Hyena and) ...indeed, he returned to his mother (from where he came).

    b)   *ya   maan(a)   áy꞊n   surgóy*
           EXCL where.close 3s꞊GEN   woman
           really, where was his wife?

    c)   *Aɣo ya   hé   gánda   n   cidáy   ka?*
           DET EXCL thing earth   GEN under.N   LOC
           this, (astonishment: does it really exist), is something under the earth?

    d)   *ya gánda   n   caráy gánda   n   caráy!*
           EXCL ground   GEN friend ground   GEN friend
           watch out! a snake! a snake!"

    e)   *a꞊ddíis꞊a   (ə)nd(a)   áa-har*
           3s꞊let꞊3s   with   SG-lion
           məʃʃín   ya   áa-har   a꞊bbún.
           but   EXCL SG-lion   3s꞊be.dead
           he left him (alone) with the lion, but, fact is, the lion was dead.

4.7.4.2   za *'so' logical consequence*

Another clause level particle is *za* labeled LC for 'logical consequence', often translatable as 'so'. It occurs frequently in the nominal clause *h(e) adí za* (thing ANA LC) 'so' or shortened to [(h)adíz].

(272) a)   *Aɣa꞊n   t-a-nə́fus-t   za / əs-káhar*
           1s꞊GEN   F-SG-story-F.SG   LC maybe-when
           aɣa꞊dd(á)꞊á   ana...
           1s꞊do꞊3s   2s.DAT
           So my story, if I tell it to you...

    b)   *dəffə́r   za   hó   sé...*
           after   LC thing.DEBR DEM.FAR
           So after that...

c)   *...a꞊ttén*   *ənda t-a-káṛḍaṣ-t*   *óoda*
    3s꞊arrive   with   F-SG-letter-F.SG   DEM.NEAR
    h(e) adí za a꞊nn(á)   *áa꞊se*   *n*   *i.*
    thing ANA   LC   3S꞊give   3s꞊DAT   SEP   3p
    ...he arrived with this letter, so this, he gave them to him.

4.7.4.3   da *'really, exactely' intensification*

In order to emphasize in a positive way, *da* INT can be cliticized to NPs, independent pronouns, verbs, the conjunction *məʃʃín* 'but' and the intensifier *húllən* 'much'. It is frequent in topicalisation constructions (4.7.1.2.). Below are some examples.

(273) *a)*   *he [(a)ɣo-f-túwaɣr(a)*   *ənda Taláatayt] da*
    thing DET-IMPERF-PAS-call.BND with   loc.name   DIC
    káamil...
    all
    really all that is called T. ...

    b)   *iŋgí*   *káamil*   *d(a)*   *ékn-an*
    3p.EMP   all   DIC   twin-PL
    izácen-an   *asénd(a)*   *iʃʃá*
    youth-PL   DEM.FAR   seven
    they were really all born at the same time (*Lit:* twins), these seven young men.

    c)   *húllən*   *d(a)*   *aɣ꞊tə-d(á)꞊á*   *ana.*
    much   DIC   1S꞊FUT-do꞊3s   2s.DAT
    I very much (like to) tell it (story) to you.

    d)   *məʃʃín dá*   *aṭṭáalib*   *a꞊kkás*   *alwalí*
    but   DIC   student   3s꞊become   seer
    dəffǝr h(e) adí.
    after   thing ANA
    but really, the student became a seer after this.

Songhay of Timbuktu has a phrase final particle /daa/ 'exactly, precisely, exclusively, right (here)' (Heath1999a:64) that conveys the same 'intensifying' semantics as this particle does in Tadaksahak. Also Tamasheq has a particle /da/ to indicate 'here, there, at the place in question' (Prasse et al. 2003:69, also Sudlow 2001:333).

4.7.4.4   je ~ jen *'only'*

This particle is often found after the verbal word to emphasize the action described. It is less frequently found after NPs or the conjunction *har* 'until'.

(274) a) *íizace*   *a꞊háaṣi꞊a*   *jé*
          youth   3s꞊look꞊3s   only
          the young man simply looked at her.

     b) *arkássaway*   *ən*   *hé*   *fó*   *jé*
          mishap   GEN   thing IND   only
          tén *a-rə́zeg*   *óod(a)*   *əngám*   *no*   *daw*
          arrive SG-herd   DEM.NEAR   instant   there LOC
          only a small mishap that arrives at the herd mentioned
          before

     c) *...ho*   *sén*   *har*   *jé*   *a꞊m-zə́ray*
          thing.DEBR DEM.FAR   until   only   3s꞊SUBJ-pass.after
          ənda sa...
          with   COMP
          ... that (action) until it simply follows that...

     d) *...agár*   *didá*   *jén*   *a꞊b-dá.*
            bad   walk.N   only   3s꞊IMPERF-do
          (know that) his behavior was only bad.
          (*lit:* he only did bad walking)

In a subordinate clause *je* 'only' can be preceded by a temporal element *har* 'until' or *sa* 'when' and then encodes immediateness, 'as soon as'.

(275) a) *har*   *jé*   *a-záɣan*   *a꞊ss-oɣtá...*
          until   only   SG-ray   3s꞊CAUS-upright.BND
          as soon as it was dawn...

     b) *sa*   *jé*   *intáynawt* *a꞊gguná-kat*   *áŋga...*
          when   only   jackal   3s꞊see-VEN   3s.EMP
          as soon as Jackal saw him coming...

4.7.4.5   daɣ, harkíd *'in addition, too'*

The particle *daɣ* 'too' can follow a verbal word or a noun. It should not be confused with *da* INT, which has a different function and also a different origin. /daɣ/ (Prasse et al. 2003:89) is found in Tamasheq with the same meaning as it has in Tadaksahak. Below is an example

where it appears next to a verb. The second example below is a special use (also found in Tamasheq), which seems to be idiolectal, to introduce either the next argument in the reasoning or give a conclusion to previous material.

(276) a) *a=báara   daɣ t-órf-in   ən   kó-(e)n*
     3s=be   too FE-car-PL GEN   owner-PL
     there are also the car owners.

    b) *daɣ adí   ándi   ay=n   t-á-ggas-t*
     too   ANA   2p.EMP   3s=GEN   F-SG-gard-F.SG
     a=f-keení.
     3S=IMPERF-be.on
     also this, it's on you that its (land) protection is. (= you are responsible for its protection)

Another particle that adds to already present material is *harkíd* 'also'. It is only found adding NPs to an already known entity. It precedes the noun that is added. Syntactically it is often at the end of a clause but it can also precede the verb as shown in example (c) below.

(277) a) *a=yyírṣək ənd(a)   áy=n   kamb-én*
     3s=sweep   with   3s=GEN   arm-PL
     harkíd   ay=n   c-en.
     also   3s=GEN   leg-PL
     he made sweeping movements with his arms and also his legs.

    b) *a=yyéd   áa=ka   áŋga harkíd   áy=n   baarí.*
     3s=return 3s=LOC   3S.EMP also   3s=GEN   horse
     he fell into it (well), he and his horse.

    c) *ándi ay=n   t-ə́-kma   harkíd   ay=n*
     2p.EMP 3s=GEN   F-PL-evil also   3s=GEN
     t-ə́ṇfa   a=f-ṭáw.
     F-useful   3s=IMPERF-reach
     it's you (pl) that its (of the land) disaster and its usefulness reaches.

4.7.4.6   inʒín *'like'*

This particle can stand between two NPs or an NP and a verbal phrase.

(278) a)　*feeji*　*aɣ(o)*　*óoda*　　　*inʒín*　*aɣ꞊wáni...*
　　　　　sheep　DET　DEM.NEAR　like　2s꞊of
　　　　　this sheep is like mine...

　　b)　*a꞊ddá*　*gíman*　　*aɣ(o)*　*óoda*　　　*k(a)*　*inʒín*　*hé*　*fó.*
　　　　　3s꞊do　good.VN　DET　DEM.NEAR　LOC　like　thing　IND
　　　　　she was absolutely beautiful.
　　　　　(Lit: she was (put) in that beauty like something.)

　　c)　*ée-dag*　　*aɣo*　*sénda*　　　*inʒín*　*ni꞊yyíkkəl꞊a*
　　　　　SG-place　DET　DEM.FAR　　like　2s꞊lift.up꞊3s
　　　　　ni꞊dd(á)꞊a　*suubú*　　　*ka.*
　　　　　2s꞊put꞊3s　hay　　　　　LOC
　　　　　this matter is like (as if) you take it (fire) up and put it to
　　　　　the hay.

Example (b) shows an idiomatic use for an absolute superlative. It has the same construction as the first example with 'something'. (c) also illustrates that clauses can follow *inʒín* which is then better translated with 'as if'.

4.8 Complex Sentences

4.8.1 Clause coordination

4.8.1.1 Clausal 'and'

There is no clausal 'and' conjunction. Main clauses are conjoined without explicit marker.

4.8.1.2 Clausal 'or' meɣ, mádaɣ, and wala

The same markers that are used for disjunction of noun phrases (4.1.9.2) are also found between clauses. *meɣ* and *mádaɣ* only encode 'or' and are therefore unambiguous. They are often found between larger text blocks including several clauses.

(279) *n(e) áyda k(a) a꞊dd(á) áy꞊n maamála*
       place DEM.PROX LOC 3s꞊do 3s꞊GEN commerce
       meɣ n(e) áyda k(a) a꞊kkúḍ áy꞊n almán
       or place DEM.PROX LOC 3s꞊herd 3s꞊GEN herd
       har á꞊dda t-a-báɣor-t.
       until 3s꞊do F-SG-wealth-F.SG
       it's here he was a merchant, or it's here he kept his herd
       until he was wealthy.

(280) *a-ʃíbuk(u) a꞊kkun(á)꞊a mádaɣ lúmmut a꞊kkun(á)꞊a*
       SG-diarrhea 3s꞊find꞊3s or measles 3s꞊find꞊3s
       he has diarrhea or measles...

wala is also found between clauses.

(281) *ə́mməs-kábahar ni꞊bbáaɣa ní꞊n caráy*
       maybe-when 2s꞊love 2s꞊GEN friend
       wala ni꞊bbáaɣa ni꞊n céena
       or 2s꞊love 2s꞊GEN younger.sibling
       wala ní꞊n a-ʃáqaɣ...
       or 2s꞊GEN SG-brother
       if you care about your friend or you care about your
       younger relative or your brother....

All the examples above show parallel clauses. There are examples of larger chunks of text material between the 'or' particles in our corpus.

The following example with *meɣ* includes a large piece of text about 'harming oneself by bad behavior'. After a concluding clause the speaker takes off again:

(282) *meɣ ni꞊b-fárrad   huurú   se   a꞊húur(u)꞊a....*
       or   2s꞊IMPERF-neglect fire   DAT   3s꞊enter꞊3s
       or you neglect the fire and it enters it (hay)....

4.8.2 Purpose and causal clauses

4.8.2.1 Purpose 'in order to' marked with subjunctive mood

A purpose clause is often only marked by the subjunctive mood without any other overt morpheme.

(283) a) *aɣ꞊tə-dáy-an   aɣa꞊n   t-óoruf-t*
          1s꞊FUT-deal-ALL   1s꞊GEN   F-car-F.SG
          aɣa꞊m-dáy-kat   áa꞊k(a)   almán.
          1s꞊SUBJ-deal-VEN 3S꞊LOC   herd
          I will sell my car in order to buy a herd (of animals).

      b) *...i꞊tə-dá-kat   daaʒí   i꞊mm-ə́fṛəḍ꞊i.*
          3p꞊FUT-make-VEN   broom.kind 3p꞊SUBJ-broom꞊3p
          (when the seeds have fallen) they make a broom in order to sweep them (seeds) together.

At times the subjunctive mood is preceded by the conjunction *har* 'until' that can have a purpose component in its semantics. (cf. 4.8.4.5 example (305))

(284) a) *yíddər   aɣay áa-har   har   aɣa꞊m-wí꞊a*
          hold   1s.IO SG-lion   until 1s꞊SUBJ-kill꞊3s
          hold the lion for me in order that I kill it.

      b) *aɣa꞊kkár   nín   har   ni꞊n   ée-mat   a꞊m-dudú.*
          1s꞊hit   2s   until 2s꞊GEN SG-small.tear 3s꞊SUBJ-flow
          I hit you to make you cry a bit.

4.8.2.2 Causal clauses

There are several ways to indicate cause. One possibility is the clause initial particle *iddá* 'because' with variants, and there are two postpositional constructions that mark cause and reason.

The clause-initial particle has two dialectal variants which are *igdá* 'because' in the Talatayt area and *iddá* or short *íd* in the rest of the

area. Sudlow (2001:331) lists the shape /id/ for a Tuareg dialect in northern Burkina Faso with the meaning 'since, if, when' and Heath (2005:674) gives examples with /ed/ meaning 'because'.

iddá is followed and preceded by a full clause and there may also be complex sentences like conditionals (see an example in story 1 line 43). Find other examples below.

(285) a) | *igdá* | *a꞊ttǝ́gor* | *a-munsu* | *a꞊b-díydi* |
|---|---|---|---|
| because | 3s꞊begin | SG-meal | 3s꞊IMPERF-penetrate |

bor-én	*ǝn*	*í-ʃʃan-an*	*ká*
person-PL	GEN	PL-tooth-PL	LOC

(not rinsing your mouth after the meal destroys them (teeth)), because the food begins to penetrate in people's teeth.

b) | *áaru* | *a꞊bbáaɣa* | *s(a)* | *a꞊tǝ-yíɣdǝr* | *ná* | *aɣo* |
|---|---|---|---|---|---|
| man | 3s꞊want | COMP | 3s꞊FUT-betray | OPP | DET |

idd(á)	*á꞊bben*	*aɣ꞊n*	*bárr-en*
because	3s꞊finish	3s꞊GEN	child-PL

a꞊ŋŋ(á)꞊í
3s꞊eat꞊3p

he wanted to betray the other one because he had finished his children and eaten them.

c) | *i꞊ssǝ́-nn-ǝl̩bǝd̩꞊a* | *iddá* | *ná* | *aɣo* | *n* |
|---|---|---|---|---|
| 3p꞊CAUS-RECI-be.added꞊3s | because | OPP | DET | GEN |

kud-én	*i꞊ddá*	*ná*	*aɣo*	*ka*
blood-PL	3p꞊do	OPP	DET	LOC

they (health agents) contaminated him (patient) because the blood of one (patient) was put in another one.

The prepositional phrase *hé bé* 'on (some)thing' can be used to introduce a reason clause. This construction is similar to the interrogative 'why?' (4.7.3.3.2)

(286) a) | *tanǝ́fust* | *aɣ(o)* | *óoda* | *ánga* | *néeda* |
|---|---|---|---|---|
| F-SG-story-F.SG | DET | DEM.NEAR | 3S.EMP | here |

hé	*bé*	*(a)꞊ttén*	*sa*
thing	LOC	3s-arrive	COMP

surgóy	*a꞊ssǝ́-may-ǝnda*	*s(a)*	*a꞊tǝ-dá...*
woman	3s꞊NEG.IMPERF-have-with	COMP	3S꞊FUT-do

this story, here is why it is such that a woman ought not to do...

b) *wiji hé bé (a)⸗dd(a)⸗í*
is.not thing LOC 3s⸗do⸗3p
har almítal aɣ(o) óoda aɣ⸗tə-hár ándi se
until example DET DEM.NEAR 1S⸗FUT-tell 2p DAT
it (decentralization) is done for no [other] reason than the
example I am going to tell you... (lit: it is not on anything it
(government) makes them (decentralized places) until for
the example...)

Cause and reason can also be expressed by means of a
postpositional phrase with the postposition *ka* 'from'. The nominal
entity is normally *he* 'thing' but may be semantically more specific, as
in example (c) below.

(287) a) *ni⸗m-jeej(í)⸗á tugúdu ka hé ká*
2s⸗SUBJ-hang⸗3s tree LOC thing LOC
hánʃi (a)⸗sə-ṭáaw⸗a
dog 3s⸗NEG.IMPERF-reach⸗3s
you should hang it (eating bowl) in a tree, because a dog
cannot reach it.

b) *ən⸗tə-mə́ɣitər hé ká ni⸗ddá*
2s⸗FUT-lack.money thing LOC 2s⸗put
təlla ka ni⸗n aʃággar
good LOC 2s⸗GEN destiny
you will have (money) problems, because it's in goods
you put your destiny/trust.

c) *a⸗ddá háamu tugúdu n bí ká*
3s⸗put meat tree GEN shadow LOC
hambará n ná ká sa
fear GEN give.VN LOC COMP
korr(á) á⸗tə-yíɣʃid⸗a.
heat.N 3s⸗FUT-destroy⸗3s.
she put the meat in the shade of a tree because she was
afraid that the heat might ruin it.

4.8.3 Conditionals

There exist a vast number of conditional markers in Tadaksahak.
Some can be traced to cognates in Songhay, while others have
cognates in Tamasheq. Some of them are dialectal variants of each
other, e.g. *ənda* 'with' (in the meaning 'when/if') is not used in the
south, where *kar* 'when/if' is used. The clause with the conditional

marker can be marked with any Mood-Aspect-Negation marker except the SUBJ. There is no element that separates the condition (the 'if-clause') from the consequent ('then...'). The main clause may be a question (289) or an imperative.

4.8.3.1   ənda *'with' and similar forms*

Clauses with *ənda* normally state a general condition that causes the event (or state) described in the main clause to happen (or be true). The MAN marker of the main clause depends on the wider context, e.g. in an instructional text SUBJ is used ((288)c), for a condition to be considered 'general knowledge' IMPERF can be found (a). The subordinate 'ənda'-clause is always in perfective aspect.

(288) a)   *ənd(a)   aɣá=n   cáy   a=ddígdig*
            with   1s=GEN   leg   3s=be.broken
            a=bb-aṣór   aɣáy.
            3s=IMPERF-hurt   1s
            when my leg is broken, it hurts (me).

   b)   *íttilla ənd(a)   a=mmáṇṇa*
         each   with   3s=be.without.grass
         ándi h(e) ad(í) a=tə-dáṛ
         2p   thing ANA   3s=FUT-suffer
         ənda suub(ú)   a=dd(a)   áa=ka
         with straw   3s=put3s=LOC
         ándi h(e) ad(í) a=tə-yinfá
         2p   chose ANA   3s=FUT-be.useful
         each time when it (land) is without grazing, it is you whom this makes suffer (and) when there is straw, it's you to whom this is useful.

   c)   *i=ccí   t-oo-lás-t   ənd(a)   átriʃ a=húuru*
         3p=say F-SG-do.again-F.SG   with   wound 3s=enter
         borá   a=m-mún   áa=be   gánda.
         person   3s=SUBJ-pour   3s=LOC   earth
         it is also said when somebody has a wound he may pour earth on it.

Most occurrences of *ənda*-clauses are preposed but it is possible to have the conditional follow the main clause.

(289)   *cí   ná   hó   bé   ar꞊tə-ʃinʃ(á)*
                 what be   thing.DEBR   LOC   1p꞊FUT-CAUS.lay.down
                 arə꞊n   báarar   ənd(a)   á꞊yyuhu?
                 1p꞊GEN   child   when   3s꞊be.born
                 on what will we lay our child when it is born?

Semantically, the temporal aspect of *ənda* 'when/if' seems to be more important than the conditional component.

Songhay of Gao and Timbuktu use the particle *nda* 'if' for several kinds of conditional clauses, such as hypothetical and counterfactual (Heath 1999:303ff; 1998:263ff). In Tadaksahak it is only found with generally known and accepted states.

In Tadaksahak, there exists a similar marker, which occurs in two forms, *əndáŋga* and *náŋga*. According to our informants, the first is used in slow speech, while the second belongs to fast speech. Our corpus shows that the short form is considerably more frequent in sentence initial position than the other variant.

əndáŋga is composed of the morphemes *ənda áŋga*, i.e. /with + 3s.EMP/ 'with it'. Similar to the *ənda* clauses treated above, the *əndáŋga* clause states a condition, now not very general but more specific, that allows the event described in the main clause to happen. The subordinate clause with *ənda áŋga* is not attested in the perfective aspect but imperfect and future are found.

(290)   *aɣa꞊n   haw(ú)   óoda*
                 1s꞊GEN   cow   DEM.NEAR
                 əndáŋga   aarú a꞊tə-háy   aɣ꞊tə-dumb(ú)꞊a
                 if   man   3s꞊FUT-give.birth   1s꞊FUT-cut꞊3s
                 əndáŋga   wáy   aɣ꞊tə-díis꞊a.
                 if   woman   1s꞊FUT-let꞊3s
                 my cow here, if it gives birth to a male (calf), I will kill it, if (it is a) female, I will let it (live).

əndáŋga is often used together with the particle *wiji* '(it) is not' and then introduces the exceptional condition that could bring about the desired effect. Typically the verb of the main clause is put in the negation to underline the exception. In most cases this can be translated into English as 'nothing but…'. When the exception is expressed by a noun, the noun follows *wiji* immediately. If it is a

clause, the complementizer *sa* is used before this clause. Example (b) below has the shortened form *naŋga* with *wiji*.

(291) a)　　*...hé (a)=sə-káaw=i*　　*ay=n*　　*kámba*　*ka*
　　　　　　thing 3s=NEG.IMPERF-take=3p　3s=GEN　　　hand　　　LOC
　　　　　əndáŋga　*wiji*　　*t-a-káṛḍaṣ-ṭ.*
　　　　　if　　　　　is.not　　F-SG-letter-F.SG
　　　　　(He told him that) nothing (could) take them from him
　　　　　except (Lit: if it is not) a letter (of authorization written by a
　　　　　marabout).

　　　　b)　　(If you leave it (land) to your children, it is not possible
　　　　　　　that it dies or gets lost [like animals])...
　　　　　...náŋga　　*wiji*　　*s(a)*　*i=tə-dáy-an.*
　　　　　 if　　　　　is.not　COMP 3p-FUT-deal-ALL
　　　　　...except that they sell [and so get the money].

In the next example a pair of conditional markers shows two opposite possibilities.

(292)　　　(hey, young man, you (should) know that I suggest a price
　　　　　for an animal only once!)
　　　　　náŋga　　　*ni=b-diní*　　　*ni=n*　*á-zrəf*　　*dá*
　　　　　if　　　　　　2s=IMPERF-take　　2s=GEN SG-money　DIC
　　　　　din(í)=á　　*náŋga*　　　*ən=sə-din(í)=a*　　　　*dá*
　　　　　take=3s　　　if　　　　　　2s=NEG.IMPERF-take=3s　 DIC
　　　　　sa　*ni=m-hár*　　*aɣáy*　*aɣa=mm-íci...*
　　　　　COMP 2s=SUBJ-say 1s　 1s=SUBJ-move.on
　　　　　if you take the money, take it! If you don't take it, (at least)
　　　　　tell me (so) that I may move on…

This condition marker was only found in spontaneous speech and not used when conditional clauses were translated. This seems to indicate that it needs to be embedded in a larger context while the marker *(əmm)əs-ká(ba)(ha)r* (see below) is used when no context is given.

4.8.3.2　*(əmm)əs-ká(ba)(ha)r*

This conditional marker contains two morphemes. *(ə́mm)əs* which, according to our informants, is an abbreviated form of *hə́mnəz ~ hə́mməz* 'maybe'. The form *ə́mməs* is rare in the corpus and may be a dialectal variant. The short form *əs* is widely used around Menaka and in the south. The second morpheme, *kábahar* 'when', seems to be linked etymologically with /har/ 'until, when'. It appears in its full

form or as *kahar* or *kar*. Different MAN markers are found in the subordinate clause with *əs-kábahar*.

(293) a)　　*əs-kábahar*　　　*á-ɣaatir*　　　*a꞊qqóq*
　　　　　maybe-when　　　SG-clay.ground　　3s꞊be.dry
　　　　　a꞊ttə́gor　　*a꞊b-s-ə́ssərr-ət.*
　　　　　3s꞊begin　　3s꞊IMPERF-CAUS-tear.apart
　　　　　when ground with clay (on it) is dry, it gets torn apart.

　　　b)　*əs-káhar*　*Máadiḍ*　*a꞊b-s-əgdá*　　　*i-ʒínn-an*
　　　　　maybe-when Milky.way　3s꞊IMPERF-CAUS-be.equal PL-sky-PL
　　　　　arə꞊f-kuŋgú　　*huwá*　*ka.*
　　　　　1p꞊IMPERF-be.full　milk　LOC
　　　　　when the Milky Way is in the zenith, we can drink our fill of milk.

　　　c)　*əs-kár*　　　*cinj-én*　*i꞊sə-kár*
　　　　　maybe-when　rain-PL　3p꞊NEG.IMPERF-hit
　　　　　íttill(a) agg áadəm　*h(e)*　　　*ad(í)*　*a꞊tə-dáṛ.*
　　　　　each　son.of Adam　　thing　ANA　3s꞊FUT-suffer
　　　　　when it does not rain, everybody will suffer.

　　　d)　*əs-káhar*　*aɣa꞊ddá*　*ṣót*　　　*aɣo*　*yizzár-an*
　　　　　maybe-when 1s꞊do　　jump.VN DET　　be.ahead-ADJZR
　　　　　ni꞊mm-ə́lbi　　*ni꞊n*　　　*t-á-kooba…*
　　　　　2s꞊SUBJ-pull.out　2s꞊GEN　　F-SG-sword
　　　　　when I make the first jump, you pull out your sword…

　　　e)　*əs-káhar*　　*ni꞊bbén*　*ənd(a)*　　*a-múnsu*
　　　　　maybe-when　2s꞊finish　with　　　SG-meal
　　　　　ni꞊m-hímay　*ni꞊n*　　*kámb-en.*
　　　　　2s꞊SUBJ-wash　2s꞊GEN　hand-PL
　　　　　when you finish the meal, you wash your hands.

　　　c)　*əs-káhar*　*ni꞊nə-ʒ-ə́rrəʒəm*　　*ni꞊n*　　　*míya,*
　　　　　maybe-when 2s꞊NEG.PERF-CAUS-rinse 2s꞊GEN　　mouth
　　　　　a-múnsu　*aɣo*　*(á)yda*　　*a꞊tə́-gor(a)-an*　*ni꞊n*
　　　　　SG-meal　DET　DEM.PROX　3s꞊FUT-sit-ALL　　2s꞊GEN
　　　　　í-ʃʃan-an　*ka…*
　　　　　PL-tooth-PL　LOC
　　　　　when you don't rinse your mouth, this same meal will stay in your teeth…

d) *arw-én* *óoda* *ə́mməs-kábahar* *i꞊mmó* *sa*
man-PL DEM.NEAR maybe-when 3p꞊hear COMP

t-a-bə́llen-t *ni꞊b-hurrú* *i꞊tə-wí* *nín.*
F-SG-fight-F.SG 2s꞊IMPERF-look.for 3p꞊FUT-kill 2s

these men, when they hear that it is a fighting match you
seek, they will kill you.

The first element, *ə́mməs* or *əs*, can be omitted when thematically
related material precedes and already contains a full condition
marker.

(294) a) *əs-kábahar* *árat-an* *i꞊yyíli alfájir*
maybe-when herd-PL 3p꞊leave morning

a꞊tə-t-ə́ləm.
3s꞊FUT-PASS-open

káhar i꞊húuru-kat *álməz* *i꞊tə-yáhar-kaat꞊a*
when 3s꞊enter-VEN evening 3p꞊FUT-cover-VEN꞊3s

i꞊m-hə́llət-kat *t-a-ssáhar-t...*
3p꞊SUBJ-mount-VEN F-SG-cover-F.SG

When the herds left in the morning, it was opened. When
they entered in the evening, they covered it (cistern) so
that they could mount over the lid.

b) *əs-kár* *aɣ꞊nə-yée-kat* *ni꞊wáni.*
maybe-when 1s꞊NEG.PERF-return-VEN 2s꞊of

kár *aɣa꞊yyée-kat* *aɣ꞊wáni.*
when 1s꞊return-VEN 1s꞊of

if I don't return, it (horse) is yours, if I return it is mine.

4.8.3.3 *əndár*

This marker posits a hypothetical condition. The subordinate clause is
in perfective with this marker.

(295) a) *əndár aɣa꞊bbáy sa Táḥa a꞊ʃʃí n(e) áyda*
if 1s꞊know COMP T. 3s꞊not.be place DEM.PROX

aɣ꞊sə-kóy-kat.
1s꞊NEG.IMPERF-leave-VEN

if I had known that T. is not here, I wouldn't have come.

b) *igdá / əndár a꞊bbáy   hó   báara*
because   if   3s꞊know thing.DEBR be.in
áa꞊se   aláxar
3s꞊DAT   other.world
a꞊sə-d(á)   áa꞊se   hé   yibrár-an.
3s꞊NEG.IMPERF-do 3s꞊BEN   thing be.bad-ADJZR
because if she knew what was for her in the other world she would not do anything bad to him.

c) *ciimí aɣo (ə)nda   hinká (a꞊cc(i)   áa꞊se)*
truth DET with   two   3s꞊say   3s꞊DAT
sa   t-a-dáqqa-t   óoda   əndár   aɣa꞊bbáy
COMP F-SG-road-F.SG   DEM.NEAR if   1s꞊know
sa   (ə)n꞊tə-záw-kat꞊a   aɣ꞊sə-dá-kat꞊a.
COMP 2s꞊FUT-take-VEN꞊3s   1s꞊NEG.IMPERF-make-VEN꞊3s
the second truth (she said to him) is that if I had known that it is this road you were going to take, I would not have taken it.

In Tamasheq, the same particle /əndǎr/ənnár/ marks a counterfactual condition (Heath 2006:698).

4.8.3.4   kud daɣ *'even if'*

kud dáɣ literally means 'if too'. It can be read as 'even if'.

(296)   *íttill(a)   ágg áadəm   mánn(a)   a꞊tə-ḍáṛ*
each   son.ofAdam without.grazing.VN   3s꞊FUT-harm
kud dáɣ a꞊sə́-mmay   almán   ənda aɣ꞊n gá.
if   also 3s꞊NEG.IMPERF-own herd   with   3s꞊GEN self
each person suffers from lack of grazing even if he does not own animals himself.

This same conjunction /kud-dǎɣ/ 'even if' (même si) is used in Tamasheq with the same function but also for a variety of other uses. Find further discussion of *kud* under 4.3.10.4.

4.8.4 *Temporal subordination*

4.8.4.1   sa *'when...'*

The simplest clause of temporal subordination is marked by the element *sa* which translates as 'when'. The subordinate clause is

always in the perfective. *sa* translated as 'when' could very well be the same element as the complementizer *sa* and the relativizer *sa*.

(297) a)   *sa   Múss(a)   a꞊ttén*
            when M.   3s꞊arrive
            arə꞊bbén   ənd(a)   a-múnsu.
            1p꞊finish   with   SG-meal
            when Mussa arrived we had finished the meal.

    b)   *s(a) a꞊ʃ-inʃá   téɣsa*
          when 3s꞊CAUS.put.down.BND   animal
          t-á-har-t   a꞊ddá   h(e) óoda...
          F-SG-lion-F.SG   3S꞊do   thing DEM.NEAR
          when she put the sheep/goat down the lioness did this...

    c)   *s(a) arw-én   aɣondo   sénda   i꞊ttén*
          when man-PL   DET.PL   DEM.FAR   3p꞊arrive
          i꞊nn(á)   áaru s(e) a-lákat
          3p꞊give   man   DAT   SG-twig
          when those men arrived, they gave the twig to the man.

    d)   *s(a) i꞊ggun(á)   á-mṇəs   [da takúduŋkut] ən*
          when 3p-PERF-see SG-camel do cut.tail   GEN
          a-dérəz   aɣo   n   bér   a꞊ccí...
          SG-trace   DET   GEN   older.sibling 3s꞊say
          when they saw the trace of a camel with cut tail, the oldest said...

    e)   *s(a) a꞊ggár-an t-áa-har-t   wə́rtilla*
          when 3s꞊find-ALL F-SG-lion-F.SG   there.is.not
          when she found (it), the lioness was not there.

sa followed by *je* 'only' encodes immediateness, 'as soon as'.

(298)   *sa   jé   intáynawt a꞊gguná-kat   áŋga...*
         when only   jackal   3s꞊see-VEN   3s.EMP
         as soon as Jackal saw him coming...

4.8.4.2   Temporal use of *dá* 'intensifier'

Another way to express a temporal subordination is by means of the intensifier *dá* INT in conjunction with an anaphoric NP.

(299)   *dá   hé   (a)yd(a)   a꞊ddá....*
         INT   thing DEM.PROX   3s꞊do
         when this was done....

4.8.4.3   *Temporal clauses based on temporal nouns*

Other strategies to achieve temporal subordination include temporal
nouns that are set in a complete postpositional relative clause. The
term *agúd* '(point in) time' is regularly found in such constructions.

(300)   agúd aɣo k(a) arə꞊kkéed(i)   ay꞊n   béena
          time DET LOC 1p꞊be.up   3s꞊GEN   top
          aɣa꞊b-gun(á)   ay꞊n   i-mə́ḍḍ-an i꞊b-zə-lə́nzəl-ət.
          1s꞊IMPERF-see   3s꞊GEN   PL-tear-PL 3p꞊IMPERF-CAUS-roll
          when we were up on the top, I saw (that) his tears were
          rolling down.

Other time expressions can be found like *assáʕat* 'time'.

(301)   assáʕat   aɣo ka   ni꞊n   a-múnsu   a꞊kkeení
          time   DET LOC 2s꞊GEN   SG-meal   3s꞊lay.down
          he (a)꞊ddúuwa   sa...
          thing 3s꞊be.better   COMP
          when your meal is put down, it is better that...

4.8.4.4   t-izzár-t *'before...'*

t-izzár-t 'before' is a cognate of a similar element in Tamasheq
derived from the verb *yizzár* 'precede'. *t-izzár-t* is usually followed by
a verb in SUBJ mood.

(302) a)   ...bor(á) a꞊b-hímay   áy꞊n   kamba
           person   3s꞊IMPERF-wash 3s꞊GEN   hand
           t-izzár-t   a꞊m-huur(ú)   a-múnsu
           F-precede-F.SG   3s꞊SUBJ-enter   SG-meal
           (it is better that) somebody washes his hand before he
           begins to eat.

      b)   ...aɣ꞊tə-d(a)   áa꞊ka   hé
            1s꞊FUT-do   3s꞊LOC   thing
           t-izzár-t   aɣa꞊m-ṭáw-an   a-hándag aɣo
           F-precede-F.SG   1s꞊SUBJ-reach-ALL SG-place   DET
           t-ə-skán-in wán-i.
           F-PL-greeting-PL   of-PL
           (it's about them I want) to talk a bit before I reach the
           moment of the greetings.

The following example has the verb of the adverbial clause in the
IMPERF aspect.

(303) *...kud á꞊mmay t-a-rásway-t wal(a) a꞊sə́-mmay*
    if   3s꞊have F-SG-clothe-F.SG or 3s꞊NEG.IMPERF-have
t-izzár-t ni꞊bb-ə́ṇṣi.
F-precede-F.SG 2s꞊IMPERF-beg
(when you try to get a piece of clothing from somebody, look if the one (shirt) that is on his body) if he has (proper) clothes or not before you beg (of him).

4.8.4.5   har *'until...'*

'until...' clauses are expressed with the adverbial conjunction *har* 'until/when'.

(304) *a꞊b-húrru áy꞊n yíddər n(e) áyda*
    3s꞊IMPERF-look.for 3s꞊GEN hold.VN place DEM.PROX
ka har a꞊yyiḍáz
LOC until 3s꞊be.tired
he (Jackal) was trying to hold him (Hyena) there until he was tired (= gave up).

Some occurrences indicate 'purpose' for the subordinate clause.

(305) *i꞊ʃʃíikəl har i꞊ddáy-kat hayní*
    3p꞊travel until 3p꞊deal-VEN millet
they traveled until (=in order to) they bought millet.

har 'until' is identical with the particle translatable as 'except' (see 4.6.3).

4.8.4.6   zamá *'after...'*

The conjunction *zamá* 'after' precedes a clause, while *déffər* 'after' is followed by a non-verbal element.

(306) a) *Zam(á) arə꞊ddə́wənn-ət andi s(e) alxér k(a)*
    after   1p꞊speak 2p DAT peace LOC
aɣo gánda wani ar-tə-yée-kat alxér aɣo...
DET earth of 1p-FUT-return-VEN peace DET
after we spoke to you(pl) about the wellbeing of the earth we will return to the wellbeing of (the body)

b) *déffər za   hó   sé   zam(á) aɣa=ss-íli=a*
    after LC   thing.DEBR DEM.FAR after 1s=CAUS-leave=3s
    a=ccí   marád-da a=m-ŋ(á)   aɣáy
    3s=say   now-INT   3s=SUBJ-eat 1s
    so after that, after I (Monkey) had made him (Hyena)
    leave it (the well), he now wanted to eat me.

zamá is found together with the conjunction 'until' in the following example.

(307) *a=nə-yéd-kat   har   zam(á) aɣa=ttén áa=daw.*
       3s=NEG.PERF-return-VEN   until after 1s=arrive 3s=LOC
       he didn't return until after I arrived at his (place).

The conjunction *zamá* 'after' originally comes from Arabic. It is also known in Tamasheq and no doubt has found its way to Tadaksahak through that language.

4.8.4.7   Simple juxtaposition of a temporal clause

There are a number of temporal expressions that are syntactically complete clauses. However, they do not stand alone but accompany a main clause for which they set the temporal frame.

(308) a) *záɣr(i)   a=ddá   t-á-mɣar-t   a=ṣṣót-kat.*
          day   3s=do   F-SG-old.person-F.SG   3s=jump-VEN
          (when) it was day, the old woman jumped.

      b) *t-áa-dwi-t   a=ddá   a=húur(u)*
          F-SG-afternoon-F.SG   3s=do   3s=enter
          á-ɣalla
          SG-wall
          in the afternoon he entered the yard.

The particle *ʃeddí ~ ceddí* 'yet' can be found preceding a verb in the IMPERF aspect and is then read as 'while'. The *ʃeddí* clause is usually the second clause in this juxtaposition.

(309) a) *ni=m-hímay=a   ʃedd(í)   á-f-ṭay*
          2s=SUBJ-wash=3s   yet   3s=IMPERF-be.wet
          you wash it (pot) while it is (yet) moist.

b)   *i̵-f-t-əg(a)*   *áari*
3p=IMPERF-PASS-do.BND   1p.IO
cedd(í)   *arə-f-kás*   *barr-én*   *ceená-nənən*
yet   1p=IMPERF-be   child-PL   be.small-ADJZR.PL
they (stories) were told us while we were (yet) small children.

The following example has *ʃeddí* 'yet' preceding a verb in the NEG.PERF to express 'before'.

(310)   *ən=tə-yáhar=a*   *ənd(a)*   *ay=n t-a-ss-áhar-t*
2s=FUT-cover=3s   with   3s=GEN F-SG-INST-cover-F.SG
ʃeddí gánd(a)   *a=nə-huur(ú)-á*
yet   earth   3s=NEG.PERF-enter-3s
cover it with its lid before earth has entered it.
(Lit: (when) earth has not yet entered it)

In the region around Menaka the form *ʃeddí* 'yet' is mostly used while *ceddí* is used in Talatayt area.

4.8.5 Spatial adverbial clauses

The spatial adverbial clause (where...) is by its syntactic shape a relative clause modifying *né* 'here/location'.

(311)   *né   k(a)   áy=n   t-ə-búuɣar*   *i̵-yyée-kat*
here   LOC   3s=GEN F-PL-camel   3p=return-VEN
gánda ka
earth   LOC
there where his camels go round in the area...

A similar construction is found with other locational nouns. The two examples below illustrate an indefinite (a) and definite (b) noun modified.

(312) a)   *ar=tə-hurr(ú)*   *áa=se*   *aŋgú k(a)   a=yyídən*
1p=FUT-look.for   3s=DAT   place LOC   3s=graze
we look for a place for it (herd) where it (can) graze.

b)   *a=yyéd*   *i̵=n*   *áŋgu aɣo*
3s=return   3p=GEN   place DET
k(a)   i̵=yyízdaɣ
LOC   3p=live
he returned to the (their) place where they live.

With the word *né* 'here' the interpretation of the clauses is strictly spatial. However *aŋgú* 'place', *ée-dag* 'place' and *a-hándag* 'place' can also be found with temporal meanings (see example (302)b)).

4.8.6   Manner adverbial clauses

A relative clause with instrumental preposition and the noun *ә́mmәk* 'manner, method' serves as an adverbial clause.

(313) a)   *ә́mmәk*   *aɣó*   *(ә)nda*   *aɣ꞊tә-d(á)-a*
          manner   DET   with   1s꞊FUT-do-3s
          the manner (with which) I will do it.

     b)   *…ә́mmәk*   *aɣó*   *(ә)nda*   *ni꞊ssoorá*   *t-áa-har-t*
           manner   DET   with   3s꞊milk   F-SG-lion-F.SG
          (tell me) how you milked the lioness.

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Appendix I

Text 1: A folk tale

The following story was told by Aʃafaʕa from Talatayt in the speech variety of that region. The tape was transcribed with the help of Mahamad ag Almaki from Infukaraytan.

The main character of the story is 'Jackal'. He is one of the most clever animals in the folk tales of the Idaksahak. Note that the story teller is using two different terms for 'jackal'. In the beginning it is *intáynawt.* This term is normally used to designate the animal known to kill kids. At the end of the story the other term *abiíji* is used, more normal for tales of this kind.

(1) *áywa kəl(á)   a-ẓúbara a꞊mmáy   bárr-en*
    well once   SG-warthog 3s꞊have   child-PL
    So, Warthog once had children.

(2) *a꞊húrru   hé   ssə́-ss-əɣr(a)   áa꞊se   n   i*
    3s꞊look.for thing CAUS-CAUS-study.BND 3s꞊DAT SEP 3p
    He was looking for somebody who would teach them for him.

(3) *ho   sénda   har   á꞊ggun(a) intáynawt.*
    thing.DEBR   DEM.FAR   until 3s꞊see   jackal
    (He did) that until he saw Jackal.

(4) *intáynawt a꞊cc(i)   áa꞊s(e)*
    jackal   3s꞊say   3s꞊DAT
    Jackal said to him:

(5) *yéw aɣa꞊m-sə́-ss-əɣra   ni꞊n   bárr-en*
    come! 1s꞊SUBJ-CAUS-CAUS-study.BND 2s꞊GEN child-PL
    "Come, (that) I will teach your children.

(6) *aɣáy   s(a) alfáqi*
    1s.EMP   COMP teacher
    It's me who is (Koran-)teacher!"

(7) *a꞊ddin(i)   áɣ꞊n   bárr-en*
    3s꞊take   3s꞊GEN   child-PL
    He took his children.

(8) *ay꞊n   bárr-en   íŋgi   ṭaaṣ(á)*
    3s꞊GEN   child-PL   3p.EMP   nine
    His children, they were nine,

(9) *a=nn(a)=í   intáynawt   se*
3s=give=3p   jackal   DAT
he gave them to Jackal

(10) *har   á=b-sə-ss-əɣr(a)*   *áa=se*   *n*   *i*
until   3s=IMPERF-CAUS-CAUS-study.BND   3s=DAT   SEP   3p
that he would teach them (for him).

(11) *a=cc(i)   a=b-sə́-ss-əɣr(a)=i.*
3s=say   3s=IMPERF-CAUS-CAUS-study.BND=3p
He$_1$ thought he$_2$ would teach them.

(12) *da   h(e)   áyd(a)   a=ddá*
INT   thing   DEM.PROX   3s=do
a-ẓúbar(a)   a=báara   n(e)   áyda
SG-warthog   3s=be   place   DEM.PROX
When this was done, Warthog was there

(13) *har   á=dd(a)   i-wútay*
until   3s=do   PL-year
until he had spent (some) years.

(14) *jinjiná   a=kkóy-kat*
first   3s=leave-VEN
(When) he first came

(15) *a=ccí   a=b-ʃúggu-kat   ay=n   bárr-en   ka*
3s=say   3s=IMPERF-look.down-VEN   3s=GEN   child-PL   LOC
and wanted to see his children.

(16) *sá   jé   intáynawt   a=gguná-kat   ánga*
when   only   jackal   3s=see-VEN   3s.EMP
As soon as Jackal saw him coming,

(17) *intaynawt   a=mmúqus-an   ənd(a)   ánga*
jackal   3s=meet-ALL   with   3s.EMP
Jackal went to meet him.

(18) *a=cc(i)   áa=s(e)   yeed-án   bárr-en   bé*
3s=say   3s=DAT   return-ALL   child-PL   LOC
káhar   i=gguná   nín   i=tə́-yixrəm
when   3p=see   2s.O   3p=FUT-disobey
i=m-wánjin   aɣáy   qaarán
3p=SUBJ-refuse   1s.IO   study.VN
He said to him: "Turn away from the children. When they see
you, they will disobey, they will refuse to study (for me)."

(19) *a=gguŋ(ú)-án   áa=se   báarar   fóo-da*
3s=guide-ALL   3s=DAT   child   one-INT
He guided one child to him.

(20)   *a꞊ggar*   *bárr-en*   *da*   *a-ffóoda*   *nə-goor(á)*   *íi꞊ka*
      3s꞊find   child-PL   INT   SG-one   FOC-sit   3p꞊LOC
      It was found that (regarding) the children, one was left of them.

(21)   *a꞊gguŋg(ú)-án*   *áa꞊se*   *n*   *a*
      3s꞊guide-ALL   3s꞊DAT   SEP   3s
      He guided it to him,

(22)   *a꞊ss-ə́kn(a)*   *áa꞊se*   *n*   *a*
      3s꞊CAUS-see   3s꞊DAT   SEP   3s
      showed it to him,

(23)   *a꞊yyée-kat*   *ənd(a)꞊á*
      3s꞊return-VEN   with꞊3s
      he came with it,

(24)   *a꞊yyéed-an*   *ənd(a)꞊á*
      3s꞊return-ALL   with꞊3s
      he returned with it

(25)   *har*   *á꞊dd(a)*   *áa꞊se*   *n*   *áa꞊se*   *s-əkn-én*   *ṭaaṣá*
      until   3s꞊do   3s꞊DAT   SEP   3s꞊DAT   CAUS-show-PL   nine
      until he had shown it to him nine times.

(26)   *intáynawt*   *áŋga*   *dá*   *bárr-en*   *a꞊b-dumb(ú)꞊i*
      jackal   3s.EMP   DIC   child-PL   3s꞊IMPERF-cut꞊3p
      je   *(ə)nd(a)*   *a-ffó*   *a-ffóo-da*   *a꞊b-ŋ(á)꞊i*
      only   with   SG-one   SG-one-INT   3s꞊IMPERF-eat꞊3p
      har   *á꞊bbeen꞊í*   *har*   *a-ffə́ddə*   *d(a)*   *a-sén(da)*
      until   3s꞊be.finished꞊3s   until   SG-one.only   DIC   SG-DEM.FAR
      As for Jackal, he had simply killed the children one by one and
      eaten them until they were finished, except for that only one.

(27)   *a-ẕúbara*   *a꞊yyéd*
      SG-warthog   3s꞊return
      Warthog returned

(28)   *a꞊cc(i)*   *áa꞊s(e)*   *ni꞊m-d(a)-án*   *a-wátay*
      3s꞊say   3s꞊DAT   2s-SUBJ-do-ALL   SG-year
      (and) he (Jackal) said to him: "Wait a year."

(29)   *har*   *á꞊dd(a)-an*   *a-wátay*
      until   3s꞊do-ALL   SG-year
      When he had spent a year (away),

(30)   *a꞊yyíləs*   *a꞊yyée-kat*   *áŋga*
      3s꞊repeat   3s꞊return-VEN   3s.EMP
      he came again to him (Jackal).

(31) *a꞊ttén*   *a꞊cc(i)*   *áa꞊s(e)*
3s꞊arrive   3s꞊say   3s꞊DAT
He (Jackal) arrived and said:

(32) *bárr-en*   *i꞊ɣɣíɣtəm*   *məʃʃín*   *aɣa꞊bbáaɣa*   *s(a)*
child-PL   3p꞊finish   but   1s꞊want   COMP
aɣ꞊tə-ṭáw   *aarú*   *fo*   *báara*   *nángo*   *se*
1s꞊FUT-reach   man   IND   be   that.place   DEM.FAR
har   *ni꞊m-d(a)*   *áa꞊se*   *a-sáafu*
until   2s꞊SUBJ-do   3s꞊DAT   SG-greeting
"The children have finished their studies (of the Koran) but
I want to go to a man who is over there so that you may greet
him."

(33) *áaru*   *aɣo*   *sé*   *a꞊cc(i)*   *áa꞊se*   *ci*   *na꞊á?*
man   DET   DEM.FAR   3s꞊say   3s꞊DAT   who   be꞊3S
"That man, he said to him, who is it?"

(34) *a꞊cc(i)*   *áa꞊s(e)*   *éelaw*   *sa*   *hé*   *(a)꞊hínjin*   *kuná*
3s꞊say   3s꞊DAT   elephant   COMP   thing   3s꞊be.much   find.VN
He said to him: "It's Elephant who is very ill."

(35) *báarar aɣó*   *nn*   *a-ffóod(a)*   *goorá*   *záɣri aɣo*   *sén(da) ənd(a)*
child   DET   GEN   SG-one   sit   day   DET   DEM.FAR   with
ay꞊n   *gá*   *intáynawt*   *a꞊ddumb(u)*   *ánga*
3s꞊GEN   self   jackal   3s꞊take   3s.EMP
a꞊ŋŋ(á)꞊a
3s꞊eat꞊3s
The only child that was left, that very day Jackal had killed and
eaten him.

(36) *a꞊haŋg(á)*   *ənd(a)*   *ánga*   *n(e)*   *áyda*
3s꞊accompany   with   3s.EMP place   DEM.PROX
He (Warthog) accompanied him from there

(37) *ho*   *sénda*   *har*   *á꞊tten*   *éelaw*   *daw*
thing.DEBR   DEM.FAR until   3s꞊arrive   elephent   LOC
until he arrived at Elephant's (place).

(38) *s(a)*   *a꞊ggaar꞊á*   *he*   *(a)ɣ(o)óoda*   *Məssíinaɣ*
when   3s꞊find꞊3s   thing   DET   DEM   God
a꞊ʃʃ-əxlək-kat   *ay꞊n*   *i-múdar-an*   *ka*
3s꞊CAUS.be.created-VEN   3s꞊GEN   PL-animal.PL   LOC
káamil   *i꞊bb-ə́kṛəm*   *áa꞊daw.*
all   3s꞊IMPERF-rest   3s꞊LOC
When he found him, all what God created among his animals
was resting at his place.

(39) *ínnazag-en*   *i꞊bb-ə́kṛəm*   *sé(nda)*
      hyena.PL   3s꞊IMPERF-rest   DEM.FAR
      Hyenas were resting there,

(40) *t-ə-wə́ɣs-in*   *káamululláahi*   *i꞊bb-ə́kṛəm*   *sén(da).*
      F-PL-game-PL   absolutly.all   3s꞊IMPERF-rest   DEM.FAR
      all kinds of game was resting there.

(41) *áyw(a)*   *a꞊kkóy-kaat꞊i*   *jé*
      well   3s꞊leave-VEN꞊3p   simply
      Well, he simply approached them.

(42) *a꞊cc(i)*   *aẓúbara se*   *káy-an*   *n(e)* *áyda har*
      3s꞊say   warthog DAT   stand-ALL   place DEM.PROX   until
      áɣa꞊m-ṭaaw꞊í   *aɣa꞊m-d(a)* *íi꞊se*   *asáafu*   *jinjiná.*
      1s꞊SUBJ-reach   1s꞊SUBJ-do   3p꞊DAT   greeting   first
      He said to Warthog: "Stay here until I reach them and greet them first.

(43) *id(da)*   *kár* *ni꞊ttén*   *íi꞊daw*
      because   when 2s꞊arrive   3p꞊LOC
      zam(á) éelaw   *hé* *(a)꞊hínjin* *áa꞊s(e)*   *kuná*
      after   elephant   thing 3s꞊be.much 3s꞊DAT   find.VN
      ni꞊ss-ə́kəryis
      2s꞊CAUS-open.teeth
      i꞊gguná   *ni꞊n*   *t-a-káryas-t*
      3p꞊see   2s꞊GEN   F-SG-open.teeth-F.SG
      i꞊tə́-ci   *górgor* *ni꞊b-górgor* *i꞊n*   *a-míiṛan*   *k(a)*
      3p꞊FUT-say laugh 2s꞊IMPERF-laugh 3p꞊GEN SG-sick.person   LOC
      i꞊m-wí   *nín*
      3p꞊SUBJ-kill 2s.O
      Because, when you arrive there, after Elephant is very ill and you show your teeth, they see your grimace and will think that you are laughing at their sick person. They will kill you.

(44) *áyw(a)*   *a꞊kkóy*   *har* *á꞊ṭṭaaw꞊i.*
      well   3s꞊leave   until 3s꞊reach꞊3s.O
      Well, he left until he reached them.

(45) *a꞊ggun(á)* *éelaw*
      3s꞊see   elephant
      a꞊ggáar꞊a *hé* *(a)꞊hínjin* *áa꞊s(e)*   *kuná.*
      3s꞊find꞊3s.O thing 3s꞊be.much 3s꞊DAT   find.VN
      He saw Elephant and found (that) he was very ill.

(46) a=cc(i)íí=s(e)   éelaw adí za   a=cc(i)   íi=s(e)
     3s=say 3p=DAT   elephant ANA LC   3s=say 3p=DAT
     áy=n   saffarí   aɣa=bbáay=a
     3s=GEN   medicine   1s=know=3s.O
     He said to them: "So Elephant, he said to them, his medicine,
     I know it."

(47) i=cc(i)   áa=s(e)   ci   n(a) áy=n   saffarí?
     3p=say   3s=DAT   who   be   3s=GEN   medicine
     They said to him: "What is his medicine?"

(48) a=cc(i) íí=s(e) a=sə́-mmay   saffari (ə)nd-áŋga wiji
     3s=say 3p=DAT 3s=NEG.IMPERF-have medicine with-3s.EMP is.not
     a=cc(i)   íi=s(e)   a-z̞úbara   n éeʃam ən-tə-húur(u)
     3s=say   3p=DAT   SG-warthog GEN grease EXM-FUT-enter
     ay=n   t-í-nʒar   kor-korr-í
     3s=GEN   F-PL-nostril   DUP-be.hot-ADJZR
     He said to them: "There is no medicine except, he said, hot
     grease of a warthog that enters his trunk."

(49) i=cc(i) áa=s(e)   a-z̞úbara   za   mán né   k(a)
     3p=say 3s=DAT   SG-warthog LC   where place LOC
     ar=tə-kun(á)=a?
     1p=FUT-find=3s.O
     They said to him: "So a warthog, where will we find it?"

(50) a=cc(i)íí=s(e)   a-z̞úbara   ḷám   aɣa=yyímmər-kat
     3s=say 3p=DAT   SG-warthog EXCL   1s=bring-VEN
     a-ffó   f-káy   náŋgo   ka   marad-óoda
     SG-one   IMPERF-stand place.that LOC now-DEM
     He said to them: "A warthog, thanks to God, I brought one that
     stands over there now."

(51) aarú a=bbáaɣa s(a) a=tə-yíɣdər   ná   aɣo
     man 3s=want   COMP 3s=FUT-betray   OPP   DET
     idd(á)   á=bben ay=n   bárr-en   a=ŋŋ(á)=i
     because   3s=finish 3s=GEN child-PL   3s=eat=3p.O
     He wanted to betray the other one because he had finished his
     children and eaten them.

(52) áywa i=cc(i) áa=se   kun(a)   áari se   n   áŋga!
     well 3p=say 3s=DAT   find   1p   DAT SEP 3s.EMP
     "Well, they said to him, get it for us!"

(53) a=yyizzár-an   íí=s(e)
     3s=go.ahead   3p=DAT
     He went ahead of them.

(54) *a-ẓúbara*   *a꞊b-guná-kaat(꞊a)*   *a꞊bb-əzzár*
SG-warthog   3s꞊IMPERF-see-VEN꞊3s.O   3s꞊IMPERF-go.ahead
bor-én   *s(e)*
person-PL   DAT
Warthog saw him coming ahead of the people,

(55) *a꞊kkóy-kat*   *i-múdar-an*
3s꞊leave-VEN   PL-animal-PL
he came (with the) animals.

(56) *har*   *j(é)*   *í-múdar-an*   *i꞊kkáy-kat*   *ənd(a)*   *a-ẓúbara*
until   only   PL-animal.PL   3p꞊stand-VEN   towards   SG-warthog
As soon as the animals stopped next Warthog,

(57) *i꞊ddin(í)*   *áŋg(a)*   *í꞊kkóy*   *ənd(a)꞊á*   *har*   *í꞊ṭṭaw*
3p꞊take   3s.EMP   3p꞊leave   COMP꞊3s   until   3p꞊reach
they took him, left with him until they reached (Elephant's place),

(58) *i꞊ddumb(ú)꞊a*
3p꞊cut꞊3s
they killed him.

(59) *i꞊ddin(í)*   *áy꞊n*   *maan(í)*
3p꞊take   3s꞊GEN   grease
They took his grease,

(60) *i꞊kkos-kóos꞊(a)*
3p꞊DUP-cut꞊3s
cut it into pieces

(61) *i꞊dd(a)*   *áŋga*   *kussu*   *ká*
3p꞊do   3s.EMP   cooking.pot   LOC
and put it into a cooking pot.

(62) *ho*   *sénda*   *har*   *a꞊hínjin*   *wáṣ.*
thing.DEBR   DEM.FAR   until   3s꞊be.much   boil.VN
(They did) this until it was boiling very much.

(63) *áywa*   *a꞊cc(i)*   *íí꞊se*   *wa*   *nn(a)*   *ayáy*   *sa*   *n*   *a*
well   3s꞊say   3p꞊DAT   IMP.PL   give   1s   DAT   SEP   3s.O
ayáy   *nə-b-d(á)꞊a*   *ay꞊n*   *t-í-nʒar*   *ka*
1s.EMP   FOC-IMPERF-do꞊3s.O   3s꞊GEN   F-PL-nostril   LOC
"Well, he said to them, give (pl) it to me! It's me who will put it into his trunk."

(64) *i꞊nn(a)*   *áa꞊se*   *n*   *á*
3p꞊give   3s꞊DAT   SEP   3s.O
They gave it to him.

(65) *a˭yyífṭən tugúdu*
3s˭climb tree
He climbed a tree,

(66) *a˭kkeedí tugúdu n beená*
3s˭be.up tree GEN top
he was up in the tree.

(67) *aywa a˭cc(i) íi˭se wa ggə́dəm áa˭b(e) ándi káamil*
well 3s˭say 3p˭DAT IMP.PL lay 3s˭LOC 2p all
andə˭mm-ə́dbul áa˭be n(e) áyda jé har
2p˭SUBJ-heap.up 3s˭LOC place DEM.PROX only until
ándə˭m-ʃugu áa˭ka
2p˭SUBJ-look.down 3s˭LOC
ba fér aɣáy ay˭n t-í-nʒar
IMP.PL open 1s.IO 3s˭GEN F-PL-nostrils
"Well, he said to them, lay(pl) on him, you(pl) all! Heap simply up on him here so that you look down on him. Open(pl) his trunk for me!"

(68) *a˭ddiní maaní hínjin korr(á)*
3s˭take fat be.much hot.VN
He took the very hot fat,

(69) *a˭ddá h(e) óoda*
3s˭do thing DEM
he did this,

(70) *a˭ss-og(á)˭a éelaw ən t-í-nʒar se*
3s˭CAUS-be.near˭3s elephant GEN F-PL-nostrils DAT
he approached it to the nostrils of Elephant,

(71) *a˭mmún áa˭ka n a jé*
3s˭pour 3s˭LOC SEP 3s only
he poured it simply into them.

(72) *éelaw korr(á) a˭zzur(ú) áy˭n baŋgú ka*
elephant heat 3s˭run 3s˭GEN head LOC
marád-d(a) ənd(a) áy˭n jinjí
now-DIC with 3s˭GEN neck
As for Elephant, heat was immediately racing through his head and his throat.

(73) *éelaw a˭ddá h(e) óoda*
elephant 3s˭do thing DEM
Elephant did this:

(74) *a꞊yyírṣək ənd(a) áy꞊n kamb-én harkíd áy꞊n c-en*
3s꞊shake with   3s꞊GEN arm-PL too 3s꞊GEN leg-PL
he shook his arms and also his legs.

(75) *he (a)ɣ(o) óoda b-ɣəlíy-ɣəli꞊a i-múdar-an ka*
thing DET DEM IMPERF-circle-DUP꞊3s.OPL-animal.PL LOC
This (made) him turn around among the animals.

(76) *káamululláh(i) íi-m-an i꞊hun(ú)꞊i*
absolutely.all   PL-soul-PL 3p꞊leave꞊3p
Everybody died,

(77) *i꞊kkás t-ə-lágaz-an sén(da) ka*
3p꞊be   F-PL-melon-PL DEM.FAR LOC
they died there. (Lit: they became melons there.)

(78) *a-bíji a꞊ss-ə́wəl c-én a꞊ttə́rəggə(t)-kat*
SG-jackal 3s꞊CAUS-be.sharp leg-PL 3s꞊jump.down-VEN
Jackal stretched his legs and jumped down.

(79) *éelaw ənd(a) áy꞊n g(a) a꞊bbún*
elephant with 3s꞊GEN self 3s꞊be.dead
Elephant himself was dead.

(80) *a-bíji a꞊mm-ə́ntəz ná aɣo k(a)*
SG-jackal 3s꞊SUBJ-pull OPP DET LOC
Jackal pulled on this one

(81) *a꞊m-ci y(á) áɣa꞊kkuna háamu zəróoda!*
3s꞊SUBJ-say EXCL 1s꞊find meat   today
and said: "Hey, I found meat today!"

(82) *a꞊m-górgor a꞊mm-ə́ntəz ná aɣo k(a)*
3s꞊SUBJ-laugh 3s꞊SUBJ-pull OPP DET LOC
He laughed, pulled on another one

(83) *a꞊m-ci y(á) áɣa꞊kkuna háamu zəróoda!*
3s꞊SUBJ-say EXCL 1s꞊find meat   today
and said: "Hey, I found meat today!

(84) *aɣa꞊b-górgor*
1s꞊IMPERF-laugh
I am laughing,

(85) *Aḷḷ(a) a꞊sə-sə́-ss-əɣra ni꞊n bárr-en*
Allah 3s꞊NEG.IMPERF-CAUS-CAUS-study.BND 2s꞊GEN child-PL
a-ẓúbara
SG-warthog
because God is not teaching your children, Warthog!"

(86) ho   sénda   har   jé   i-múdar-an óoda káamil
     thing.DEBR DEM.FAR   until only PL-animal-PL DEM all
     i꞊hun(u)-án   sénda   k(a).
     3p꞊leave-ALL   DEM.FAR   LOC
     It was (like) that as soon as all these animals had died there.

(87) a꞊dd(á)   aẓẓamán   áŋg(a) a꞊bb-ée(d)-kat   jé sénda
     3s꞊do   period   3s.EMP 3s꞊IMPERF-return-VEN only DEM.FAR
     a꞊b-ŋá   j(e) í꞊n   haam-én
     3s꞊IMPERF-eat   only 3p꞊GEN   meat-PL
     a꞊b-górgor   íi꞊ka.
     3s꞊IMPERF-laugh   3p꞊LOC
     For quite some time, he simply returned there and ate their
     meat and laughed about them.

Text 2: Part of a Radio emmision

The following communication was given at the 'Radio rurale de
Menaka' on 10th November 2001. The speaker is Hadmahamed ag
Mohamed from Inkiringiya, a location some kilometers south-east of
Menaka.

It is part three of a speech lasting about one hour interspersed with
music. The topic is mostly about 'Decentralization', a new organisa-
tional policy of the government.

(1) Igmattaʃak ho   senda
    doubt.taken thing.DEBR   DEM.FAR
    You can be sure

(2) ay꞊n   t-a-damil-t   be   komin-tan
    3s꞊GEN   F-SG-profit-F.SG   LOC   community-PL
    əndaɣo   ooda andə꞊b-gun(a)-a Maali a꞊dd(a)꞊i
    DET.PL   DEM 2p꞊IMPERF-see-3s M.   3s꞊make꞊3p
    it is for its (Mali) benefit (that) the communities you(pl) see are
    made. (lit: Mali makes them.)

(3) wiji bananda a꞊dda   desãtralisasiõ
    is.not in.vain 3s꞊do   decentralization
    It is not for nothing that it installed the decentralization.

(4) wiji he   be   a꞊dd(a)꞊i
    is.not thing LOC 3s꞊do꞊3p
    It is done for no other reason

har almital *aɣ(o) ooda aɣ꞊tə-har andi se*
until example DET DEM 1s꞊FUT-tell 2p DAT
than this example I am telling you(pl):

(5) *əs* *bora* *a꞊tə-may ay꞊n alman babo-(a)n*
COMP person 3s꞊FUT-own 3s꞊GEN herd be.much-ADJZR
(Suppose) somebody has his numerous herd,

(6) *a꞊m-ʒi-mmiʒi* *marad-ood(a) ay꞊n barr-en se*
3s꞊SUBJ-CAUS.separate now-DEM 3s꞊GEN child-PL DAT
he divides (it) between his children,

(7) *a꞊m-d(a)* *ənda t-ə-səgar t-ə-səgar*
3s꞊SUBJ-do with F-PL-part F-PL-part
he makes several small herds out of them,

(8) *bora* *kullu a꞊m-n(a) aa꞊se ay꞊n a-dagar*
person each 3s꞊SUBJ-give 3s꞊DAT 3s꞊GEN SG-part
aɣo f-kuḍ
DET IMPERF-keep
he gives to each person his part to keep.

(9) *bora* *kaaka s(a) a꞊f-kuḍ ay꞊n alman*
person whatever COMP 3s꞊IMPERF-keep 3s꞊GEN herd
Anybody who keeps his herd

(10) *a꞊ss-əħsəl-kaat꞊a*
3s꞊CAUS-win-VEN꞊3s
makes it win (be more numerous)

(11) *a꞊m-d(a)* *aa꞊se kuḍ giŋ-giman*
3s꞊SUBJ-do 3s꞊DAT tend.flock.VN DUP-be.good.ADJZR
and keeps it well.

(12) *ay꞊n* *ga s(e) a꞊kkuuḍ꞊a*
3s꞊GEN self DAT 3s꞊tend.flock꞊3s
It's for himself he tends it.

(13) *a꞊yyirsəɣ aa꞊se a꞊yyirsəɣ aa꞊se*
3s꞊enlarge 3s꞊DAT 3s꞊enlarge 3s꞊DAT
It gets bigger and bigger for him.

(14) *bora* *da ay꞊wani agar kuḍ*
person INT 3s꞊of bad tend.flock.VN
(But) the person who is tending it badly,

(15) *a꞊hun(u)-an*
3s꞊leave-all
it (herd) will disappear.

(16) *aŋga   se   a=dda   ho   se*
3s.EMP   DAT   3s=do   thing.DEF   DEM.FAR
It's to him(self) he did that.

(17) *He   (a)ɣo senda   ay=n   almital*
thing DET   DEM.FAR   3s=GEN   example
That is the parable.

(18) *aŋga   ne   (a)yda:*
3s.EMP place DEM.PROX
Here it is:

(19) *Maali ay=n   ga   se   addəwəl.*
M   3s=GEN   self DAT   country
Mali is a country for its on right.

(20) *He   (a)=kkas addəwəl bə-beer-i*
thing 3s=be   country   dup-be.big-ADJZR
It is a large country.

(21) *wərtilla   s(a) alħakumat a=kko(ə)nda   a-handag*
there.is.not COMP government 3s=go with   place
kaamil   ənd-aŋga   wiji   ənda ay=n   ko-(e)n.
all   with-3S.EMP   is.not   with 3s=GEN   owner-PL
It does not happen that the government goes to every place
except with its owners.

(22) *Ho   senda   be   a=dda   komin-tan*
thing.DET   DEM.FAR   LOC   3s=make   commune-PL
Because of that, it made communities.

(23) *ganda   kullu   aŋga   nə=wwaqaɣ   gand(a)   aɣo*
land   each   3s.EMP FOC-sign   land   DET
s(a) a=mmay
COMP 3s=own
Every region has signed (=received responsibility) for the land
that it owns.

(24) *bora   kullu a=wwakal   ganda   aɣo*
person   each   3s=be.entrusted land   DET
s(a) aŋg(a)   a=baara
COMP 3S.EMP   3s=be
(To) each person was entrusted the land on which he is.

(25) *he   (a)ɣo senda   be*
thing DEF   DEM.FAR   LOC
aŋga   be   komin-tan   i=dda
3s.EMP   LOC commune-PL   3p=make
Because of that matter, because of this, communities are made,

(26) *aŋga   be   desəntralisasyon a꞊dda*
3s.EMP   LOC   decentralization   3s꞊make
(and) because of this, decentralization is made,

(27) *aŋga   be   sekter-tan   i꞊dda.*
3s.EMP   LOC   sector-PL   3p꞊make
(and) because of this, sectors are made.

(28) *Ittill(a)   a-handag   a꞊mmay   bor(a)   aɣo*
every   SG-place   3s꞊own   person   DEF

yyiṣkəd-an   ənd(a)꞊a
originate-ALL   with-3s
s(a)   aŋga   ay꞊n   t-a-ggas-t   a꞊f-keedi
COMP   3S.EMP   3s꞊GEN   F-SG-keep-F.SG   3s-IMPERF-be.on
Every place has somebody who originates from it, on whom its
(land) protection lies.

(29) *aŋga   ay꞊n   i-ɣaʃad-an   i꞊yyed*
3s.EMP   3s꞊GEN   PL-ruin-PL   3p꞊return
It is to him that its disaster returns,

(30) *aŋga   i꞊n   t-ə-ṇfa   i꞊yyed*
3s.EMP   3p꞊GEN   F-SG-be.usefull   3s꞊return
It is to him that its profit returns.

(31) *Bora   da   aɣo   sa   ay꞊n   ganda*
person   INT   DEF   COMP   3S꞊GEN   land
a꞊b-d(a)   agar   kuḍ
3s꞊IMPERF-make   bad   tend.flock.VN
(Now) the person that takes bad care of his land,

(32) *aɣo   (a)di   ay꞊n   ga   s(e)   a꞊dd(a)   a-ɣaʃad.*
DEF   ANA   3S꞊GEN   self   DAT   3s꞊do   SG-ruin
that one, it is to himself he did a ruinous thing.

(33) *Daɣ   adi   ittill(a)   agg   aadəm   a-ŋgu   kaak(a)*
too   ANA   every   son.of Adam   SG-place   whatever
a꞊baara
3s꞊be
a꞊mmay   a-dagar   ganda   n   t-a-ggas-t   ka
3s꞊own   SG-share   land   GEN   F-SG-keep-F.SG   LOC
Also this: every human being, wherever he is, has a share in
the protection of the land.

(34) *ittill(a)   agg aadəm   kud daɣ sa   (ə)n꞊tə-yigəz*
each   son.of Adam   if   too   COMP 2s꞊FUT-guard
aḍḍəkəd   aɣo ka   ni꞊nn alman   a꞊bb-əḍən-kat
measure   DEF LOC 2S꞊GEN herd   3s꞊IMPERF-graze-VEN
har   a꞊mm-ee-kat
until 3s꞊SUBJ-return-VEN
ay꞊n   t-a-ggas-t   a꞊f-keedi   nin.
3s꞊GEN   F-SG-guard-F.SG   3s꞊IMPERF-be.on 2s
Every man, even if you only guard in the measure (=area) where your herd grazes and returns, its protection is your responsibility.

(35) *I-manokal-an   iŋgi   da   a-handag aɣo i꞊wani*
PL-rule-PL   3p.EMP   INT SP-place DEF 3p꞊of
ka   i꞊n   dini   a꞊kkay-kat ganda   ka
LOC   3p꞊GEN   take.VN   3s꞊stop-VEN land   LOC
ay꞊n   t-a-ggas-t   a꞊f-keedi꞊i
3s꞊GEN   F-SG-guard-F.SG   3s꞊IMPERF-be.on꞊3p

As for the chiefs (=authorities), the area that is theirs from where they stop taking from the land, its protection is their responsibility.

(36) *a-ɣiiwan   ən   koy aŋga   da*
SG-camp   GEN owner 3s.EMP   INT
ne   k(a) ay꞊n   t-ə-buuɣar   i꞊yyee-kat
here LOC 3S꞊GEN   F-PL-female.camel 3p꞊return-VEN
ganda   ka   aŋga   da
land   LOC 3s.EMP   INT
ay꞊n   t-a-ggas-t   a꞊f-keed(i)꞊a.
3S꞊GEN   F-SG-guard-F.SG   3S꞊IMPERF-de.on꞊3s
As for the head of the camp, there where his female camels (go out to graze and) return on the land, he too, its protection is his responsibility.

(37) *daɣ adi ittill(a)   agg aadəm   əb-dida*
too ANA each   son.of Adam   IMPERF-walk
a꞊baara   gand(a)   aɣo Maali wani
3s꞊be   land   DEF M.   of
a꞊mmay   aa꞊ka   t-a-dagar-t   t-a-ggas-t   wani.
3s꞊have   3s꞊LOC   F-SG-part-F.SG   F-SG-guard-F.SG   of
So, every human being walking, being in the country of Mali has in it a little share of its protection.

(38) *ni꞊b-d(a)*   *aniyat*   *bora*   *s(e)* *aɣo* *n-tə-ḍar*
    2s꞊IMPERF-do mind   person   DAT   DEF   EXM-FUT-harm
    ganda
    land
    You pay attention to a person that may harm the land.

(39) *ni꞊b-d(a)*   *aniyat*   *a-na-z-gaafa*   *se*
    2s꞊IMPERF-do mind   SG-ACT-CAUS-evil   DAT
    ən꞊tə-huuru-kat   *ganda*
    EXM꞊FUT-harm-VEN   land
    You pay attention to an evildoer that may enter the country.

(40) *ni꞊b-da*   *aniyat*   *a-baydog*   *se*   *ə-b-dida*   *tarra* *ka*
    2s꞊IMPERF-do mind   SG-thief   DAT   IMPERF-walk   bush   LOC
    You pay attention to a thief who walks in the bush.

(41) *ni꞊b-da*   *aniyat*   *eeqad*   *se*
    2s꞊IMPERF-do mind   SG-bush.fire   DAT
    You pay attention to a bush fire.

(42) *ni꞊b-da*   *aniyat*   *bora*   *se*   *ən꞊tə-kos*   *tugud-en*
    2s꞊IMPERF-do mind   person   DAT   EXM꞊FUT-cut   tree-PL
    You pay attention to a person that may cut trees.

(43) *i꞊n*   *tugud-en*   *kaamil*   *andə꞊wan-en*
    3p꞊GEN   tree-PL   all   2p꞊of-PL
    Its (land) trees are all yours,

(44) *i꞊mmay*   *t-ə-ṇfa*   *bə-beer-i*
    3p꞊have   F-SG꞊be.useful   DUP꞊be.big-ADJZR
    they have great use.

(45) *daɣ* *adi* *bor(a)*   *aɣo* *gguna*   *bora*
    too   ANA   person   DET   see   person
    b-d(a)   *eeqad*
    IMPERF-make   bush.fire
    wala *f-kos*   *tugud-en*
    or   IMPERF-cut   tree-PL
    a꞊nə-c(i)   *aa꞊se*   *he*
    3s꞊NEG.PERF-say   3s꞊DAT   thing
    So, the person who sees somebody putting a fire or cutting trees (and) does not say anything to him,

(46) a꞊m-bay   ganda   se
3s꞊SUBJ-know   land   DEM.FAR
i꞊nn   alman   jen   h(e)   ayda   k(a)   a꞊kkaŋ
3p꞊GEN   herd   only   thing   DEM.PROX   LOC   3s꞊fall
har   a꞊ddumbu꞊i   a꞊nə-yirɣəm   aa꞊se.
until   3s꞊cut꞊3p   3s꞊NEG.PERF-warn   3s꞊DET
he should know that (this is like) somebody who fell on their herd and slaughtered them and he did not warn him.

(47) Daɣ   adi   ee-dag   aɣo   senda   ittilla   agg   aadəm
too   ANA   SG-place   DET   DEN.FAR   each   son.of Adam
aɣo   f-keedi   Maali n   ganda   kaamil
DEF   IMPERF-be.on   M.   GEN   land   all
a꞊mmay   dərwa,   a꞊mmay   alħaq
3s꞊have   right   3s꞊have   right
a꞊tə-yigəz   ee-dag   aɣo   a꞊baara   ganda   ka
3s꞊FUT-guard   SG-place   DET   3s꞊be   land   LOC
ittill(a) aḍḍəkəd   aɣo   (ə)nda   ni꞊ddəbət   ay꞊n
each   measure   DET   with   2s꞊can   3s꞊GEN
t-a-ggas-t
F-SG-guard-F.SG
So, at this occasion, each human being anywhere in the country of Mali has the right, has the responsibility to look after the place where he is in the land with every measure you can protect it.

(48) ənd-aŋga   ni꞊ddəbət   sa
with-3S.EMP   2s꞊can   COMP
(ə)n-tə-maazal   ənda ni꞊n   kamba   n   maazal
2s꞊FUT-send   with 2s꞊GEN   hand   GEN   send.VN
If you can, you act with the act of your hand

(49) naŋga   t-a-raqim-t   ni꞊n   iiləs   wani
if   F-SG-warn-F.SG   2s꞊GEN   tongue   of
ni꞊mm-ərɣəm
2s꞊SUBJ-warn
or you warn (with) a warning of your tongue.

(50) naŋga   he   ni꞊kkəssan   ni꞊m-koy-kat
if   thing   2s꞊refuse   2s꞊SUBJ-leave-VEN
ni꞊m-har   alħakumat se
2s꞊SUBJ-tell   government DAT
If he (the warned person) refuses, you come and tell the authorities.

(51) *aŋga   nə=ddəbət s(a)*
3s.EMP   FOC=can   COMP
a=tə-yirɣəm   bora   aɣo   (a)yda   se.
3s=FUT-warn   person   DET   DEM.PROX   DAT
It is this (government) that can warn that same person.

(52) *daɣ adi   ganda   bora   fooda*
too   ANA   land   person   one
a=nə-yixlək-kat   aɣo   ddəbət   s(a)
3s=NEG.PERF-creat-VEN   DEF   can   COMP
a=tə-yigəz   andi   se   andə=n   gand-en.
3s=FUT-guard   2p   DAT   2p=GEN   land-PL
Also this, the land, one person does not exist that can look after your (pl) countryside for you (pl).

(53) *ni=n   ganda   ittill(a)   agg aadəm   aɣo   ni=gguna*
2s=GEN   land   each   son.of Adam   DET   2s=see
a=kkəmətət ənda he   kaamil
3s-harm   with   thing   all
(As for) your land, every human being you see (on it), who harms with whatever,

(54) *ni=m-bay   ganda   se*
2s=SUBJ-know   land   DEM.FAR
you really need to know

(55) *a=tten   ənd(a)   a-ɣaʃad*
3s=arrive   with   SG-ruin
nin   ənda ni=n   ga   a=tə-yizzar-kat
2s.EMP   with   2s=GEN   self   3s=FUT-be.ahead-VEN
it arrives with ruin, it is you yourself it will reach first.

(56) *idda   ganda əs-kabahar   a=b-maṇṇa*
because   land   maybe-when   3s=IMPERF-be.without.grazing
wiji bora fooda   ənd(a)   ay=n   maṇṇ(a)
is.not person one   with   3s=GEN   lack.food.VN
a=tə-daṛ
3s=FUT-harm
Because the land, when it is without grazing, it is not (only) one person the lack of food will harm.

(57) *ittill(a)   agg aadəm   maṇṇa   a=tə-daṛ*
each   son.of Adam   lack.food.VN   3s=FUT-harm
kud daɣ a=sə-mmay   alman   ənd(a) ay=n   ga
if   too   3s=NEG.IMPERF-own herd   with   3s=GEN   self
Everybody will suffer by lack of food, even if he owns no herd himself.

(58) maṇṇa   aɣo (a)yda   a=tə-ṭaw   nin.
lack.food.VN DET DEM.PROX 3s=FUT-reach   2s
This same lack of food will reach you.

(59) əs-kar   cinj-en   i=sə-kar   ittilla agg aadəm
maybe-when rain-PL   3p=NEG.IMPERF-hit each son.of Adam
h(e) ad(i) a=tə-daṛ.
thing ANA 3s=FUT-harm
If the rains do not fall, everybody will eventually suffer.

(60) daɣ adi ee-dag   aɣo senda   aŋga   be
too ANA SG-place DET DEM.FAR 3s-EMP   LOC
ittill(a)   agg aadəm
each   son.of Adam
a=m-nahad   a-handag aɣo a=baara ganda   ka.
3s=SUBJ-guard   SG-location DET 3s=be land   LOC
Also this, at that occasion, because of this, may everybody take
care of the land where in the region he is.

(61) a=mm-əgəz   ay=n   ga   se
3s=SUBJ-guard   3s=GEN   self DAT
wiji bora   fo   se
is.not person   IND DAT
May he look after (it) for himself, not for someone else.

Appendix II

2. Verbs with their causative and passive forms

The following lists give a number of verbs that are Songhay cognates that take a root from Tamasheq when they are causativized or passivized.
A presentation of causative and passive morphemes is found in 3.1.3.2 and 3.1.3.4 respectively. Double causatives are discussed in 3.1.3.2.3

2.1. One Argument Verbs

One argument verbs are discussed in 4.3.1

gloss	root	causative
to cry	*héw*	*s-əlhá*
to eat enough	*kuŋgú*	*s-íywən*
to fall	*káŋ*	*ʃ-ə́ḍḍər*
to fly	*ṣót*	*sə́-ss-əgəd*
to get up	*tunú*	*s-əŋkəṛ*
to go down	*zumbú*	*zə́-zəb-ət*
to inter in	*húuru*	*z-úguz*
to leave	*kóy*	*s-ə́gla*
to depart	*hunú*	*s-ə́fəl*
to be placed	*keení*	*ʃ-inʃá*
to run	*zurú*	*z-ə́zəl*
to sit	*gorá*	*ʃ-áɣam*
to spend the day	*hóoɣay*	*s-əklá*
to stop	*káy*	*s-ə́bdəd*

gloss	root	causative
to suckle	*káŋkam*	*s-ə́ŋkəṣ*
to be upright	*káy*	*s-oɣtá*
to walk	*didá*	*ʒi-ʒə́wəŋk-ət*

2.2 Two Argument Verbs

Verbs with two arguments are discussed in 4.3.3.
The form of the Songhay root corresponds to the singular imperative.

gloss	IMP	causative	passive	gloss (passive)
to bring	*záw*	*ʃí-ʃʃ-iwi*	*t-ə́wi*	
to call somebody	*céw*	*s-ə́ɣrət*	*tuw-aɣra*	
to climb/ride	*keedí*	*ṣ-ə́wəṇ*	*t-əwəṇ*	
to cut/slaughter	*dumbú*	*z-ə́gzəm*	*t-ə́gzəm*	
to do	*dá*	*ʃ-íga*	*t-ə́ga*	
to drink	*nín*	*ʃ-íʃu*	*t-íʃu*	
to eat	*ŋá*	*ʃ-íkʃa*	*t-ə́kʃa*	
to fight (also verbally)	*zóɣ*	*s-ə́k(ə)nəs*	*t-ə́knəs*	be shunned
to gather (food)	*habá*	*s-ə́fṛəd*	*t-ə́fṛəd*	
to give	*ná*		*t-ə́kfa*	
to hear	*mó*	*s-əslá*	*túw-əsla*	
to hit	*kár*	*ʃ-ə́wwət*	*t-ə́wwət*	lead (animals)
to jump over	*ṣót*	*sə́-ss-əgəd*	*túw-əgəd*	
to kill/hit	*wí*	*sə-ssúw-anɣa*	*túw-anɣa*	
to know	*báy*	*ʃí-ʃʃin*	*túw-əsan*	
to lead pulling	*guŋgú*	*sə́-ss-əlwi*		

gloss	IMP	causative	passive	gloss (passive)
to leave alone	*dís*		*túw-iya*	
to look at	*háaṣi*	*s-úswuḍ*	*t-úswuḍ*	
to look for	*hurrú*	*s-ə́gmi*	*t-ə́gmi*	
to love/want	*báaɣa*	*ʃ-éeṛa*	*túw-əṛa*	
to read/study	*qaarán*	*sə́-ss-əɣra*	*túw-aɣra*	
to say	*cí*	*sə́-ssuw-an ~* *ʃə́-ʃʃuw-an*	*túw-ənṇa*	
to see	*guná*	*s-əkná*	*ṭúwəni ~* *ṭúwəna*	
to steal	*záy*	*ʃí-ʃʃ-əkəṛ*	*t-əkəṛ*	
to swallow	*gôn*	*z-ə́lməz*	*t-ə́lməz*	
to take	*diní*	*z̧-ə́bəz̧*	*t-ə́bəz̧*	be arrested
to take out	*káw*	*ʃ-úkuʃ*	*t-úkuʃ*	
to taste sth.	*tabá*	*s-ə́ndək*	*t-ə́ndək*	
to tell	*hár*		*t-ə́məl*	
to throw	*fúr*	*sə́-ss-əgər*		
to hinder	*gaŋgá*	*s-ə́gdəl*		
to buy	*dáy-kat*	*z-ə́nza-kat*		
to sell	*dáy-an*	*z-ənz-án*		
to guard	*gár*	*z̧-ə́gəz̧*	*t-ə́gəz̧*	
to accompany	*haŋgá*	*ʃí-ʃʃ-idu*	*túwa-ʃí-ʃʃ-idu*	
to wash	*hímay*	*ʃí-ʃʃ-ərəḍ*	*túwa-ʃí-ʃʃ-ərəḍ*	
to guide pushing	*taŋgá*	*ʃ-ə́wwət*	*t-ə́wwət*	

2.3 Labile Verbs

Labile verbs are discussed in 3.1.3.1 and 4.3.2.
The form of the Songhay root corresponds to the singular imperative, which implies that the translation of the transitive use is given.

gloss	IMP	causative	passive	gloss (passive)
to break (leg)	*dígdig*	*ẓ-ərẓá*		
to break (thing)	*báq*	*ẓ-ərẓá*	*t-ərẓá*	
to approach	*mán*	*ẓ-éhəẓ(-kat)*		
to construct	*cén*	*ṣ-ə́kṛəṣ*	*t-ə́kṛəṣ*	
to cook	*hiná*	*sə́-ss-əŋŋa*		
to cut	*kós*	*ʃ-ə́ɣdəʃ*	*t-ə́ɣdəʃ*	
to dig	*fás*	*z-ə́ɣəz*	*t-ə́ɣəz*	
to distance from	*mór*	*ṣ-ə́gəg*		
to dress	*dáb*	*s-əlsá*		
to fill	*ṭón*	*s-ə́tkər*	*t-ə́tkər*	
to give birth	*háy*	*ʃí-ʃʃ-əṛu*		
to pour	*dudú*	*sə́-ss-ənɣəl*		
to pound	*dút*	*ʒ-íidiʒ*	*t-ə́diʒ*	
to untie	*fer*	*ʃí-ʃúw-əṛa*		
to reach	*ṭáw*	*ṣə́-ṣṣ-əwəḍ*	*t-ə́wəḍ*	have caught up with
to sow	*ṭáatab*	*ẓ-ə́zmi*	*t-ə́zmi*	
to moisten	*ṭáy*	*s-ə́bdəg*		caus: make wet
to throw out	*mún*	*sə́-ss-əŋɣəl*	*túw-aŋɣəl*	
to tie up	*háw*	*sə-súw-aqan ~ ʃí-ʃúw-aqan*	*túw-aqan*	
to enlarge	*bér*	*s-ə́mɣər ~ ʃ-ə́mɣər*	*t-ə́mɣər*	be honoured

gloss	IMP	causative	passive	gloss (passive)
		ʃ-ámɣar		
to dry	*qóq*	*s-ə́ɣər*		
to hide	*túk*	*z-ə́gəz*	*t-ə́gəz*	

2.4 Verbs of Songhay origin taking a derivational prefix

This list contains all verbs of this type that were found in texts and confirmed with informants. Some more came up by elicitation, which are not listed here because the informants did not always agree on the correctness of the form.

gloss	IMP	causative	passive	gloss (passive)
to be dirty	*ʒíibit*	*ʒí-ʒibit*		
to vomit	*yeerí*	*s-éeri*		
to return	*yéd*	*s-eedí*		
to be red	*cidáy*	*sí-ciday*		
to be long	*kukú*	*sú-kuku*		
to sow/dig	*fík*	*sə́-ffik*	*túwa-fik*	
to trow out	*mún*		*túwa-mun*	
to prick	*tím*	*sə́-ttim*	*túwa-tim*	to be/get injected

Appendix III

Wordlist: English - Tadaksahak

In appendix III, an English-Tadaksahak wordlist is given based on the Swadesh 200 item list. Some of the words on the list do not exist in the language (e.g. 'flower', 'snow'). Other words appear twice because of double meanings or idiomatic uses in connection with other words.

The following abbreviations are used:

adj.	adjective
adv.	adverb
conj.	conjunction
ind.	independent (pronoun)
n.	noun
npl	noun only found in plural
num.	number
pl.	plural
postp.	postposition
prep.	preposition
pron.	pronoun
vi.	intransitive verb
vt.	transitive verb

A - a

able, to be	*vt.*	**báy**	and (between noun phrases)		
alive, to be	*vi.*	**yiddár**		*prep.*	**ənda**
all	*quantifier*	**káamil**	animal	*n.*	**a-múudər**
among	*postp.*	**ka**	approach, to	*vt.*	**mán**
amuse oneself, to	*vi.*	**hór**	arm / hand	*n.*	**kambá**
ancestor (paternal)	*n.*	**baabá**	ashes	*n.*	**booʃí**

at (somebody's) *postp.* **daw**

B - b

back (bodypart)	*n.* **a-rúuru**	bite (animal), to	*vt.* **ŋá**
bad	*adj.* **agar**	bite, to	*vt.* **ņám**
bad, to be	*vi.* **yibrár**	black	*adj.* **bíibi**
bark	*n.* **barjí**	black (color)	*n.* **bíibi**
battery	*n.* **ţóndi**	black, to be	*vi.* **bíibi**
because	*conj.* **igdá ~ iddá ~ íd**	blacken, to	*vt.* **bíibi**
before s.b.	*noun phrase.* **mo ka.**	blood	*npl.* **kud-én**
beginning	*n.* **baŋgú**	blow (wind), to	*vi.* **fúr**
belly	*n.* **guŋgú**	bone (general)	*n.* **biidí**
big, to be	*vi.* **bêr**	breathe, to	*vi.* **ʃ-ǝnfǝʃ**
big, to make	*vt.* **bêr**	burn, to	*vt.* **kurú-kuru**
bird (general)	*n.* **cíidaw**	burned, to be	*vi.* **kurú-kuru**

C - c

carve (wooden spoon), to		counting	*n.* **ʃ-iḍǝn**
	vt. **kár**	country	*n.* **gánda**
child	*n.* **báarar**	cut, to	*vt.* **dumbú**
cloud	*npl.* **nuun-én**		*vt.* **kós**
cold (weather)	*n.* **fufú**	cut, to be	*vi.* **kós**
come, to	*vi.* **kóy-kat**	cutting	*n.* **kós**
count, to	*vt.* **ʃ-iḍǝn**		

D - d

day	*n.* **zaɣrí**	dirty, to be	*vi.* **lés**
dead, to be	*vi.* **bún**		*vi.* **ʒíibit**
death	*n.* **bún**	dirty, to make	*vt.* **lés**
deep, to be	*vi.* **kukú**	distance from, to	*vt.* **mór**
deepen, to	*vt.* **kukú**	dive, to	*vi.* **yíʃǝf**
die, to	*vi.* **bún**	dog (general)	*n.* **hánʃi**
dig, to	*vt.* **fás**	dream	*n.* **keení ŋ guná**
digging	*n.* **fás**	drink, to	*vt.* **nín**
dirt (excrement)	*n.* **lés**	dry, to be	*vi.* **qóq**

dug, to be   *vi. fás*   dust   *n. a-báaleq*
dull (knife), to be *vi. bún*

E - e
ear   *n. haŋgá*   end   *n. bún*
earth   *n. gánda*   *n. míya*
eat, to   *vt. ŋá*   exhausted (battery), to be
eating   *n. ŋá*   *vi. bún*
egg   *n. t-áa-fult*   extinguish (fire, light), to *vt. wí*
                                      eye   *n. mó*

F - f
face   *n. mó*   fight, to   *vi. zóɣ*
fall (rain), to   *vi. kár*   fire   *n. huurú*
fall, to   *vi. káŋ*   (fire)wood *n. tugúdu*
familiar with, to be   *vt. báy*   fish   *n. a-mánana*
far away, to be *vi. mór*   five   *num. ʃammúʃ*
fat (on meat)   *n. maaní*   flow, to   *vi. dudú*
fat, to make   *vt. ṇás*   fly, to   *vi. ṣót*
father   *n. ḅaabá*   foot / leg   *n. cáy*
fear   *n. hambará*   four   *num. akkóz*
fear, to   *vt. hambará*   from   *postp. ka*
feather   *n. áfraw*   fruit   *n. ízzay*
fiber (plant) *n. barjí*   fur   *npl. haab-én*

G - g
game (play)   *n. hór*   grass (green) *n. yél*
give, to   *vt. ná*   green (grass), to be *vi. ṭay*
giving   *n. ná*   green solution *n. garúura*
good   *adj. giŋ-gimán*   ground   *n. gánda*
grandmother   *n. nana béeri*   guts   *npl. áadan-an*
grandfather   *n. ḅaba béeri*

H - h

hair	*npl.* **haab-én**	he/she/it	*ind. pron.* **áŋga**
hand / arm	*n.* **kambá**	hit, to	*vt.* **kár**
head	*n.* **baŋgú**	hold, to	*vt.* **yíddər**
hear (news), to	*vt.* **mó**	hot, to be (warm)	*vi.* **korrá**
hear (noise), to	*vi.* **mó**	hot, to make	*vt.* **korrá**
heart	*n.* **wə́l**	how? *question phrase.*	
heat	*n.* **korrá**		**man ə́mmək aɣó ənda**
heavy, to be (T)	*vi.* **tíŋ**	hunt (game), to	*vi.* **gimár**
heavy, to be	*vi.* **yiltág**	husband	*n.* **aarú**
here	*n.* **néeda**		

I - i

I	*ind. pron.* **aɣay**	important, to be	*vi.* **bêr**
if/when	*clause initial particle*	impure (religiously), to be	
	ənda		*vi.* **lés**
if (hypothetical)	*conj.* **əndár**	in	*postp.* **ka**
if/when	*conj.* **əs-kábahar**		

J - j

jackal	*n.* **a-bíji**	jump (n)	*n.* **ṣót**
	n. **intáynawt**	jump over, to	*vt.* **ṣót**
	n. **mó céena**		

K - k

kill (animal), to	*vt.* **dumbú**	killing	*n.* **wí**
kill, to	*vt.* **wí**	know, to	*vt.* **báy**

L - l

laid down, to be	*vi.* **keení**	lean, to be	*vi.* **yilbák**
lake	*n.* **a-ɣázar**	leather	*n.* **kuurú**
land	*n.* **gánda**	leave a rest, to	*vi.* **cindí**
laugh, to	*vi.* **górgor**	leave for, to	*vt.* **kóy**
laughter	*n.* **górgor**	left (side)	*n.* **zálgat**
leaf	*n.* **áa-la**	leg / foot	*n.* **cáy**

length	*n. kukú*	live, to	*vi. yiddár*
lie on side, to	*vi. yíniʃtaga*	liver	*n. taaʃá*
lion	*n. tárra nn ízzay*	long, to be	*vi. kukú*
	n áa-har	louse (head)	*n. geení*

M - m

male	*n. aarú*	moon	*n. a-yyár*
man	*n. aarú*	mosquito	*n. míya kukú*
measure	*n. míya*		*n t-aa-dás-t*
meat	*n. háamu*	mother	*n. naaná*
month	*n. a-yyár*	mouth	*n. míya*

N - n

name	*n. mân*	night	*n. cijí*
narrow, to be	*vi. karrós*	nose	*npl. t-í-nʒar*
near to, to be	*vi. mán*	nostrils	*npl. t-í-nʒar*
neck	*n. jinjí*	numerous, to be	*vi. babó*
new, to be	*vi. yaynáy*	numerous, to make	*vt. babó*
nice	*adj. giŋ-gimán*		

O - o

odor	*n. mammaní*	one	*n. a-ffóoda*
old, to be	*vi. ʒén*	one	*num. fóoda*
old, to make	*vt. ʒén*	opening	*n. míya*
older sibling	*n. bêr*		

P - p

peak (bird)	*n. míya*	pour, to	*vt. dudú*
person	*n. borá*	pull sth. heavy, to	*vt. húbut*
play (football), to	*vt. kár*	pull, to	*vt. yírkəb*
play (instrument), to	*vt. kár*	push sth./sb., to	
play, to	*vi. hór*		*vt. yíntəg ~ yíntaɣ*
pond (temporary)	*n. a-ɣázar*		

R - r

red	*adj.* **cidáy**	road	*n.* **t-a-dáqat-t**
red, to be	*vi.* **cidáy**	root (plant)	*n.* **ée-caw**
rest	*n.* **cindí**	rope (general)	*n.* **karfú**
right (side)	*n.* **áaɣil**	rot, to make	*vt.* **fumbú**
rise (sun), to	*vi.* **fúr**	rotten, to be	*vi.* **fumbú**
river (Niger)	*n.* **a-jǝráw**		

S - s

salt	*n.* **ciidí**	smoke	*npl.* **nuun-én**
sand	*n.* **t-a-záazul-t**	smooth, to be	*vi.* **sǝlál**
say, to	*vt.* **cí**	snake (general)	*n.* **gónʃi**
scratch, to	*vt.* **z-ǝ́kmǝz**	snake, sp	*n.* **gánda ŋ karfú**
scratch, to	*vi.* **kúkkuʒ-it**	sneeze, to	*vi.* **tínʒit**
see, to	*vt.* **guná**	some	*n.* **cindí**
seed	*n.* **áaḍǝm**	(some)thing	*n.* **hé**
sew, to	*vt.* **ṭaatab**	son	*n.* **ízzay**
sewing	*n.* **ṭaatab**	spit, to	*vi.* **s-ǝ́ṭǝf**
sharp (knife), to be	*vi.* **yiwál**	split (wood), to	*vt.* **yíftek**
short, to be	*vi.* **gazúl**	stand up, to	*idiom* **káy béena**
sight	*n.* **guná**	stay, to	*vi.* **goorá**
sing, to	*idiom* **d(a) á-ṣṣak**	stepfather	*n.* **babá fumbú**
sit, to	*vi.* **goorá**	stepmother	*n.* **naná fumbú**
sitting	*n.* **goorá**	stick sth. into, to	*vt.* **yírẓi**
skin	*n.* **kuurú**	stick (wooden)	*n.* **bundú**
sky	*npl.* **i-ʒínn-an**	stone	*n.* **ṭóndi**
sleep	*n.* **keení**	stony elevation	*n.* **ṭóndi**
sleep, to	*vi.* **keení**	stop, to	*vi.* **káy**
small size	*n.* **ceená**	straight, to be	*vi.* **yáʕad**
small, to be	*vi.* **ceená**	suck, to	*vt.* **sǝ́mǝm**
small, to make	*vt.* **ceená**	sun	*n.* **wayní**
smell sth., to	*idiom*	swim, to	*vi.* **yíʃǝf**
	mammaní kár borá	swollen, to be	*vi.* **hǝḍǝdi**

T - t

tail	n. *t-a-lánkaw-t*		throw, to	vt. *fúr*
tall, to be	idiom *may kay*		tie, to	vt. *háw*
	vi. *kukú*		to	postp. *ka*
tea (leaves)	n. *áa-la*		tongue	n. *íiləs*
tether, to	vt. *háw*		tooth	n. *ée-ʃan*
tethered, to be	vi. *háw*		towards	locative prep. *ənda*
that (one)	dem. *(a)sénda*			postp. *kámba*
them	pron. *íŋgi*		trample on sth., to	
there	adv. *sénda*			idiom *káy he ka*
they	ind. pron. *íŋgi*		tree (general)	n. *tugúdu*
thin (person/livestock), to be			true, to be	vi. *dáttət*
	vi. *yilbák*		turn off (radio, TV), to	vt. *wí*
thin, to be	vi. *ʃadíd*		turn, to	vt. *yístaɣ*
think (that)	vi. *yordá*		twine (rope), to	vt. *kár*
this	dem. *óoda*		two	num. *hiŋká*
this	dem. *áyda*		tying	n. *háw*
three	num. *kaaráḍ*			

U - u

ugly, to be	vi. *yibrár*		use (money) fraudulently, to	
upright, to be	vi. *káy*			vt. *ŋá*
upright, being	n. *káy*			

V - v

vomit, to	vi. *yéeri*		vomiting	n. *yéeri*

W - w

walk	n. *didá*		washed, to be	vi. *hímay*
walk, to	vi. *didá*		washing	n. *hímay*
want, to	v. *cí*		water	npl. *aryén*
warn (from danger), to	vt. *kár*		we	ind. pron. *áari*
wash, to	vt. *hímay*		well fed, to be	vi. *ŋás*

wet, to be   *vi. ṭay*
wet, to make   *vt. ṭay*
wetness   *n. ṭay*
what is it?   *interrogative phrase.*
              ci ná-a
when?   *interrogative phrase.*
              c(i) agúd
where? (+action) *interrogative*
              phrase. mán n(e)
where? (+noun) *interrogative*
              adv. maaná
white   *adj. kóoray*
white (color)   *n. kóoray*
white, to be   *vi. kóoray*
who?/what?   *interrogative pron.*
              ci

why?   *interrogative phrase.*
              ci ná hó be
wide, to be   *vi. yilwá*
wife   *n. surgóy*
wind   *n. héw*
wing   *n. áfraw*
wipe out, to   *vt. tús*
wiped out, to be *vi. tús*
wiping out   *n. tús*
with (company) *comitative prep.*
              ənda
with (instrument) *(instrumental)*
              prep. ənda
withhold sth., to
              idiom káy he be
woman   *n. surgóy*

Y - y

year   *n. a-wátay*
yellow, to be   *vi. yaráɣ*
you (pl)   *ind. pron. ándi*

you (sg)   *ind. pron. nín*
young one *n. ízzay*

Appendix IV

Wordlist: Songhay cognates in Tadaksahak

The following word list gives Tadaksahak words which have cognates in Songhay. The list contains 290 items. The words are alphabetically ordered. Pharyngealized consonants follow the non-pharyngealized ones. Signs not used in English follow a similar sign, e.g. /ə/ follows /e/, /ʃ/ follows /s/. After the sign '◄' the cognate is listed with the reference referring to the dictionaries by Heath, KCH for Koyra Chiini (Heath 1998a), KS for Koroboro Senni (Heath 1998b) and DN92 the 'Lexique Soŋay – Français' by Youssouf Mohamed Haïdara et al., DNAFLA 1992. When the closest cognate is from another than these central speech varieties, the name of the location is given, e.g. Bamba, Labbazanga. A few words are only found in the other Northern Songhay languages. They are listed phonetically with the corresponding language, e.g. Tagdal […]. Tagdal and Tabarog cognates are taken from Rueck & Christiansen (1999); Tasawaq cognates were provided by Maarten Kossmann (Leiden).

The abbreviations are the same as those in the previous list

A

=a *pron.* him, her, it; 3s direct object clitic ◄ a 'he, she, it' KCH:19

a= *pron.* he, she, it; 3s subject clitic ◄ a 'he, she, it' KCH:19

aarú *n.* man, husband; male ◄ ar; har KCH:118; aru 'man; male' KS:30
    pl. **arw-én**

addá *n.* long blade, machete ◄ adda 'machete-like blade' KCH:19; KS:15
    pl. **addá-tin**

a-ffó *n.* one (and the other) ◄ a-foo 'one' KCH:20

a-ffóo-da *n.* one; one by one, in distributive phrase ◄ a-foo 'one' KCH:20

aɣay *pron.* I, me; independent 1s pronoun ◄ agey 'I, full 1s pronoun' KS:17; Bamba: aɣey

ahún *v* take it! only used in imperative ◄ hũũ! 'here! take!' KS:168

áŋga *pron.* he, she, it; him, her, it; independent 3s pronoun ◄ ŋga - ŋa

'he, him, she, her, it' KCH:96

áari *pron.* we, us; independent 1p pronoun ◄ ir - iri 'we, us' KS:171

ary-én *npl.* water ◄ hari 'water' KCH:119; KS:148

B

baabá *n.* father; brother of the father; ancestor ◄ baaba 'father; father's
    brother' KCH:35; KS:34 *pl.* ***baab-én***
    baba béeri *n.* grand-father ◄ baaba-beer 'father's elder brother'
        KCH:36; baaba-beeri 'father's elder brother' KS:34.
        pl. ***babá beer-án***
    babá fumbú *n.* stepfather ◄ baba-fumb-o 'stepfather' KCH:36; KS:34
        pl. ***babá fumb-én***

baaní *n.* pod of *Acacia nilotica* containing tannic acid used to tan
    skins; by extension also tannic acid ◄ baani 'pod of acacia tree'
    KCH:39

baarí *n.* horse (general) ◄ bari 'horse' KCH:41; KS:41 pl. ***baar-én***

baaʃí *n.* water bag ◄ baas(u)-ije (lit: well-child) 'recipient and cord for
    drawing water from well' KCH:42; baasu '(water) well' KCH:42.
    pl. ***baaʃ-én***

babó *vi.* to be many, to be numerous ◄ bobo 'much, many' adj KCH:49
    — *vt.* make numerous

báaɣa *vt.* to love; to want ◄ baa 'want' KCH:35; KS:33
    — *n.* love pl. ***báay-en***

bán *vi.* to be soft; to be fragile; to be docile ◄ baan 'be soft' KCH:38;
    ban 'be soft, tender' KS:37
    — *vt.* make soft; make tender

bána *n.* salary ◄ bana 'wages, fee' KCH:28; 'pay' KS:37 pl. ***bána-tan***

baŋgáw *n.* hippopotamus ◄ baŋa 'hippopotamus' KCH:38

baŋgú *n.* head; beginning; front ◄ bomo 'head; top, front' KCH: 49; boŋ
    (boŋa) 'head, top part' KS:52 *pl.* ***banj-én***

baŋgú *n.* well; waterhole ◄ baŋgu 'seasonally flooded ground, seasonal
    swamp' KCH:39; KS:39 *pl.* ***banj-én***

báara *vi.* to exist; to be available ◄ bara 'exist' KCH:40 KS:40
    — *vt.* to be in

barʃí *n.* bark; fiber (plant) ◄ abirjan 'fibre des arbres' DN92; Cf. Tagdal
    [bar'gi]; Tabarog [bar'gi]; Zarma bàrjì 'lien en écorce d'arbre' *pl.* ***barj-én***

barmáy *n.* change money for payment ◄ barmey 'change for payment'

KCH:41

báy   *vt.* to know; to be able to ◄ bey 'know, be familiar with (sth, sb) KCH:45; KS:45

be *postp.* on; above; about ◄ beene 'sky; upper area, upstairs' postp 'above, on top' KCH:43

bén   *vi.* to be finished
— *vt.* to finish ◄ ben (intr) 'finish, end, be used up' KCH:43; KS:44

beená   *n.* top; upper part ◄ beene 'sky; upper area' KCH: 43; beena 'top, topmost part of area; sky' KS:44

bér   *vi.* to be big, important; to be grown up ◄ beer 'be big in size; be grown up, old' KCH:44; beeri KS:44
— *vt.* to make big, to enlarge
— *n.* older sibling ◄ beere 'older sibling' (esp. of same sex) KCH:44
pl. *béer-an*

bəbbá *vt.* to carry (baby) on back wrapped in a piece of cloth ◄ babba 'carry baby in a bundle on one's back KCH:36; KS:40

bi   *n.* yesterday; also adverbial use ◄ bii 'yesterday' KCH:46; KS:46

bi   *n.* shadow, visual representation of sth./sb., photo ◄ bii 'shadow; image' KCH:46; KS:46 *pl.* *biy-én*

bíibi   *vi.* to be black ◄ bibi 'be black, dark' KCH:46
— *vt.* to make black, to blacken
— *n.* blackness
— *adj.* black

biidí   *n.* bone (general) ◄ biiri 'bone' KCH:48; biri KS:48 *pl.* *biid-én*

bíŋgi   *n.* male donkey ◄ binji 'âne mâle' DN92 *pl.* *bíŋgi-tan*

bitá ~ biitá   *n.* kind of cereal meal ◄ bita 'milet porridge' KCH:49; KS:49

booʃí   *n.* white ashes; left after cooking fire ◄ boosi 'ashes' KCH:51
pl. *booʃ-én*

borá   *n.* person ◄ boro 'person' KCH:51; KS:55 *pl.* *bor-én*

bóy   *vi.* to move (camp) ◄ boy 'drag; herd, drive (animals ahead of oneself)' KCH:52; KS:56

bún   *vi.* to be dead, to die; (fire, light) go out; (battery) be exhausted ◄ bun 'die' KCH:54
— *n.* death; end (of month) *pl.* *bun-én*

bundú   *n.* (wooden) stick ◄ bundu 'stick (of wood); walking stick, cane' KCH:55; KS:59 *pl.* *bund-én*

C

caráy *n.* friend, comrade; another of the same kind ◄ cere 'friend, peer, agemate' KCH:58; KS:66 *pl.* **car-én**

cáw *vt.* to call sb ◄ cow 'call sb, summon, send for sb' KCH:63
    — *n.* call pl. **caw-én**

cáy *n.* leg, foot; (car) wheel ◄ cee 'foot, leg' KCH:56; KS:63 *pl.* **c-en**

caycáy *vt.* to weave (mat) ◄ key 'weave' KCH:163

cén *vi.* to be pitched (tent), to be constructed (house)
    — *vt.* to pitch (tent), to construct (house) ◄ cen 'build, erect (housing)' KCH:57; cin 'build (house)' KS:69

ceená *vi.* to be small, young ◄ ciina 'be small, young, infrequent, rare, sparse' KCH:60
    — *vt.* to make small
    — *n.* small size
    mó céena *n.* jackal

ci *interrogative pron.* who/what? interrogative word asking for the identity of a person/item ◄ cin 'what?' KS:69; mey 'who?' KCH:194
    ci ná-a *interrogative phrase.* what is it?
    ci ná hó be *interrogative phrase.* why?

cí *n.* similar thing, kind ◄ sii 'kind, type' KCH:219; cine adj 'semblable' KS:70

cí *vt.* to say sth. to sb.; also used before quotation ◄ cii 'speak' KCH:59
    — *vi.* to want to

cíidaw *n.* bird (general) ◄ cirow 'bird' KCH:62 *pl.* **cíid-an**

cíday *n.* underneath ◄ cire postp. 'under' KCH:62; KS:70

cidáy *vi.* to be red ◄ cirey 'be red' KCH:62
    — *adj.* red

cidí-cidi *vi.* to be very red ◄ cirey 'be read' KCH:62

cigóoda *n.* this (coming) night; tonight ◄ cigoo 'tonight' KCH:59 Bamba: cij-oo da 'tonight' KS:69

ciidí *n.* salt ◄ ciiri 'salt' KCH:62 *pl.* **ciid-én**

ciimí *n.* truth ◄ ciimi 'truth' KCH:60 *pl.* **ciim-én**

cijí *n.* night ◄ ciji 'night' KCH:59 *pl.* **cij-én**

cijín *n.* last night ◄ cijin 'night' KS:69

cindí *vi.* to leave a rest ◄ cindi 'remain' KCH:60
    — *n.* rest, part ◄ cindi 'remainder, rest' KCH:60 *pl.* **cind-én**

cin-í-cina *vi.* to be very small ◄ ciina 'be small' KCH:60

D

da *phrase final particle.* exactely, precisely ◄ daa 'exactely, precisely, exclusively, right (here)' KCH:64

dá *vi.* to be done; do be made (in material); to put (somewhere) ◄ dam (daŋ) 'be done; make, do; put (somewhere)' KCH:65
— *vt.* to make sth
— *n.* making

daamá *n.* improvement ◄ daame/a 'well being, happiness' KS:77

daanay *n.* seeds of cram-cram ◄ daaney 'burrgrass/cram-cram' KCH:66

dáb *vi.* to be covered; to be dressed (clothes)
— *vt.* to cover (recipient); to put (clothes) ◄ daabu 'cover, enclose; shut; look' KCH:64
— *n.* covering; dressing (clothes)

danfú *n.* cooking pot for couscous with holes in the bottom; only used in towns ◄ dõfo 'couscous or rice steamer' KCH:74 denfu KS:83

danjé *vi.* to be silent, to shut up ◄ dangey 'shut up, be quiet; silence' KCH:67; KS:67
— *vt.* to make quite, to silence

danj-én *npl.* charcoal ◄ denji '(hot or cold) charcoal, ember(s)' KCH:69. Sg: *danjí*

dár *vi.* to be spread out ◄ daar 'prepare the bedding' KCH:67
— *vt.* to spread out ◄ daar 'spread out, lay out' KCH:67
— *n.* mat (cover) put on the ground to sit on *pl.* *daar-én*

daw *postp.* at (somebody's place); with /ten/ 'arrive' in a noun phrase ◄ doo 'at (the place of)' KCH:72

dáy *vt.* to deal; to cost ◄ dey 'buy' KCH:70
  dáy-kat *vt.* to buy
  dáy-an *vt.* to sell

dáy-day *n.* groceries (spices, meat) for sauce ◄ dayday 'daily groceries (spices, meat) for sauce' KCH:70

deedí *n.* gum arabica ◄ deeli 'gum arabic, tree resin' KCH:68 *pl.* *deed-án*

didá *vi.* to walk ◄ dira 'walk, go for a walk, set off on foot' KCH:72
— *n.* walk, departure

dílwil *n.* vegetal oil ◄ dilwil 'cooking oil' KCH:71 < French /de l'huile/

diní *vt.* to take, to catch ◄ din 'take, pick up, catch, arrest, get' KCH:71

— n. taking

diŋgá *n.* forgetfulness ◄ dinaa 'forget' KCH:71

diŋ(á)-an *vt.* to forget ◄ dinaa 'forget' KCH:71 dirŋa KS:87

dis *vt.* to let go, to leave alone; to allow to (with subjunctive clause).
◄ deesi 'fly, fly away, soar' KCH:69

dudú *vi.* to flow (water)
— vt. to pour (liquide) ◄ door 'flow (out); pour (on) KCH:75 doori 'flow;
pour' KS:91

dumbú *vt.* to cut, to kill an animal by cutting the jugular ◄ dumbu 'cut,
sever, cut down, cut off' KCH:78

dút *vi.* to be pounded
— vt. to pound (general) ◄ dur 'pound (grain, with mortar and pestle)
KCH:79

<h1 style="text-align:center">Ḍ</h1>

ḍâṛ *vi.* (body part) to ache, to be painful ◄ door '(body part) ache, be
painful' KCH:75
— vt. to harm, hurt, make sore ◄ door 'harm, hurt, make sore' KCH:75
— n. sickness, epidemic, suffering *pl.* ***ḍáaṛ-en***

<h1 style="text-align:center">Ǝ</h1>

əndororó *n.* gutter for rain water along the roof ◄ ndorro 'roof gutter,
rain pipe' KCH:76 *pl.* ***əndororóo-tan***.

ənda *conjoining NPs.* and; *instrumental prep.* with; *comitative prep.* in the
company of, with; *directional prep.* towards; *clause initial particle* if/
when ◄ nda 'with; and; if' KCH:64

<h1 style="text-align:center">F</h1>

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farká *n.* donkey (general) ◄ farka 'donkey' KCH:84 *pl.* ***farc-én***

fás *vi.* to be dug
— vt. to dig ◄ faani 'dig' KCH:82 fanʃi 'dig (hole, pit)' KS:101
Labbezanga: fansi
— n. digging

fáy *vi.* to be separated ◄ fey 'diverge, be separate, be distinct, be of

more than one type' KCH:87

— *vt.* to separate ◄ fey 'separate, keep apart' KCH:87

feejí *n.* sheep (general) ◄ feeji 'sheep' KCH:85 *pl.* ***feej-án***

fendí *n.* winnowing van ◄ fendu 'winnowing van' KCH:86 *pl.* ***fend-án***

fér *vi.* to be opened

— *vt.* to open, to undo ◄ feeri/feri 'open, stretch out (limbs); uncover (jar) KCH:86

fík *vi.* to be sown; to be buried

— *vt.* to put sth. under the earth (corps, seeds) ◄ fiji 'bury' KCH:88

— *n.* burying

fo *dem.* a certain, indefinite particle; another of the same kind; some (body); some (thing) ◄ a-foo 'one' KCH:20

fóo-da *num.* one (numeral accompanying noun) ◄ a-foo 'one' KCH:20

fufú *n.* cold weather ◄ fufu 'intense cold; bitter cold weather' KCH:92. pl. ***fuf-én***

fumbú *vi.* to be rotten ◄ fumbu 'rot, decay, decompose; smell rotten, foul' KCH:93

— *vt.* to make rott

fûn *vi.* to be pierced

— *vt.* to pierce ◄ fun 'pierce, puncture' KCH:93

— *n.* hole; piercing *pl.* ***fûun-en***

fúr *vi.* (wind) to blow; (sun) to rise

— *vt.* to throw sth.; to throw (sth.) at sb ◄ fur 'abandon, avoid, get rid off, release, dump' KCH:94 'throw, drop, let go off' KS:116

fur-án *vi.* to be lost (item), to have dropped ◄ fur 'be abandoned, released, dumped' KCH:94

G

gá *n.* self ◄ gaa '(living) body, organism KCH:96 *pl.* ***j-én***

gánda *n.* earth, ground; region, land, country ◄ ganda 'ground; land, territory, country' KCH:99 *pl.* ***gánd-en***

gaŋgá *vt.* to prevent from ◄ gaŋga 'prevent, block, hold up, delay' KCH:100

gár *vt.* to find, to come upon ◄ gar 'find, encounter' KCH:102

gár *vt.* to look after ◄ gardi 'guard, stand watch over' < Fr garder KCH:102

garúura *n.* green solution used to color leather items ◄ garura 'green'

(Hombori) *pl.* **garúura-tan**

geení *n.* head louse ◄ gani 'louse' KCH:100 *pl.* **geen-án**

gíman *vi.* to be good, nice, useful ◄ gomni 'good fortune (health, prosperity) KCH:107

    giŋ-gimán *adj.* nice, good

gismá *n.* roselle used in sauce and for medicine ◄ jisima 'roselle (bitter spice)' KCH:148

gôn *vt.* to swallow ◄ goon 'swallow' KCH:107

    — *n.* swallowing *pl.* **gôn-en**

gónʃi *n.* snake (general) ◄ gondi 'snake (general)' KCH:107; specimen KS:131 *pl.* **gónʃ-en**

goorá *vi.* to sit; to stay ◄ goro 'sit, stay, dwell' KCH:108

    — *n.* sitting

góora *n.* cola nut; this nut is not chewed in the nomadic society.

    ◄ gooro 'cola nut' KCH108 *pl.* **góora-tan**

gór-gor *vi.* to laugh, to laugh about sb ◄ gogor 'smile, laugh' KCH:106

    — *n.* laughter; laughing *pl.* **gorgor-én**

guná *vt.* to see ◄ guna 'see' KCH:111

    — *n.* seeing; sight ◄ guna 'view, sight' KCH:111 *pl.* **gun-én**

guŋgú *vt.* to guide (animal) holding, lead sb. by holding ◄ gurgey 'wrestle, struggle, get into showing match' KS:138; gurje 'come to blows, get into a fight' KCH:112

guŋgú *n.* belly ◄ guŋgu 'belly' KCH:111 *pl.* **guŋg-én**

gúr *vt.* to showel up (from ground) ◄ gur 'draw water from well' KCH:112

gussú *n.* hole in the ground; borrow of animals ◄ guusu 'pit, hole (concave excavation)' KCH:113 *pl.* **guss-én**

guurú *n.* metal ◄ guuru 'metal; metal object (bar, hoe. spear etc.)' KCH:112 *pl.* **guur-én**

H

haab-én *npl.* hair; fur ◄ haabu 'cotton' KCH:113. Sg: **haabú**

habá *vt.* to harvest (wild grass seeds) by brooming them to heaps.

    ◄ haabu 'gather up (object)' KCH:113; haab-a 'to sweep (into a pile)' KS:140

hambará *vt.* to fear ◄ hambur 'be afraid of, fear' KCH:115

    — *n.* fear ◄ hamburey 'fear' KCH:115

hamborí *n.* mortar; drum (made out of a mortar by spanning a skin over the opening). humbur 'mortar' KS:168; Cf. Tagdal [hambo'ri]; Tabarog [hambo'ri]; Tasawaq hâmbùrù *pl.* **hambor-én**

háamu *n.* meat; animal raised for meat ◄ ham 'meat, flesh; fish' KCH:115 *pl.* **háam-en**

handí *n.* calf ◄ handey 'heifer' KS::146 *pl.* **hand-én**

hánʃi *n.* dog ◄ hãyʃi 'dog' KCH:124 hãʃi Goundam; hanʃi KS:147 *pl.* **hánʃ-en**

haŋgá *vi.* to accompany ◄ haŋga 'run alongside, stick close to' KCH:117; 'follow' KS:146
— *vt.* to pass by

haŋgá *n.* ear ◄ haŋa 'ear' KCH:117; KS:145 *pl.* **hanj-én**

haŋgar-én *npl.* urine ◄ hanjeri 'déchet de vache' DN92

hár *vt.* to tell ◄ har 'say, tell' KCH:118

háaṣi *vt.* to look. Cf. Tagdal ['ha:ʃi]; Tabarog ['ha:ʃi]; Tasawaq háásày, hásày
— *n.* look

háw *vi.* to be tied up (animal) ◄ haw 'be tied' KCH:121
— *vt.* to tie up (animal); to tie (saddle) on (animal); to put (sandals) ◄ haw 'tie (up), bind' KCH:121
— *n.* tying

hawrú *n.* prepared cereal meal ◄ hawru 'supper' KCH:122 pl. **hawr-én**

hawú *n.* cow, cattle ◄ haw 'cow, cattle' KCH:121 pl. **haw-yén**

háy *vi.* to give birth
— *vt.* to give birth to; to sire ◄ hay 'give birth to; (plant) produce (fruit, grain)' KCH:123

hayní *n.* millet ◄ hayni 'millet' KCH:123

hé *n.* thing; something; somebody ◄ haya 'thing, something' KCH:123 *pl.* **h-én; hé-tan**

héw *vi.* to cry ◄ hẽẽ 'weep, whine' KCH:124 Gundam: hew̃

héw *n.* wind ◄ hew 'wind, air current' KCH:125 *pl.* **heew-én**

hijjí *n.* pestle ◄ hinje 'pestle' hinje-yje 'small pestle' KCH:127 *pl.* **hijj-én**

hillí *n.* horn ◄ hilli 'horn' KCH:126 *pl.* **hill-én**

hímay *vi.* to be washed
— *vt.* to wash, to develop (photos) ◄ himey 'take a bath; wash (e.g. hands)' KCH:126
— *n.* washing

hín *vi.* to excel in sth ◄ hin 'be competent, master, be able to do' KCH:126

hiná   *vi.* to be cooked, grilled, prepared; to ripen (fruit)
  — *vt.* to cook, to prepare (meal) ◄ hina 'cook; be cooked' KCH:126
  — *n.* cooking

hinciní *n.* goat (general) ◄ hancin 'goat' KCH:117; Bamba: hincin.
  pl. ***hincin-én***

hínjin   *vi.* to be repaired; to be winnowed
  — *vt.* to winnow; to repair, to fix ◄ hanse 'fix, repare; fix up (food)'
  KS:147 Bamba: hinse

hiŋká   *num.* two ◄ hiŋka 'two' KCH:127
  — *n.* (the) two *pl.* ***hink-én***

hóoɣay   *vi.* spend the midday hours ◄ hoy 'spend the midday hours'
  KCH:132

hór   *vi.* to play; to amuse oneself ◄ hoorey 'have fun, play' KCH:165
  — *n.* game (children) *pl.* ***hoor-én***

horrá *vi.* to be bitter; to be hot (spice); to be hard (situation); to be
  angry, nervous, coleric (person) ◄ hottu 'be hotly spiced' KCH:132;
  KS:166 Labbezanga: hortu
  — *vt.* to make bitter; to make spicy
  — *n.* bitterness (taste)

húbut   *vt.* to pull sth. heavy ◄ hibi 'move over (for), make room (for)'
  KS:157

húgu *n.* tent, house, living quarters; household, family; home,
  marriage ◄ huu 'house; household, family' KCH:132; hiiji 'get maried;
  wed' KCH:125 *pl.* ***híj-en***

hunú *vt.* to leave, to depart from ◄ hun 'leave, depart (from)' KCH:134
  — *n.* direction; place of departure
  hun(u) adínit *idiom* euphemism for 'to die' (Lit: 'leave the earth')

hurrú *vt.* to look for; to try ◄ wir 'seek, try to get' KCH:253 huri 'seek, look
  for' Bourem/Ansongo KS:170
  — *n.* trial, looking for

húuru   *vt.* to enter in; to begin ◄ huru (hura) 'enter (place)' KS:170
  — *n.* beginning; entering

huurú   *n.* fire. Cf. Tagdal [hu:'ru]; Tabarog [hu:'ru]; Tasawaq hùrú, *pl.*
  huur-én

I

=i   *pron.* them; 3p direct object clitic ◄ i 'they, them' KCH:134

i. *pron.* they; 3p subject clitic ◂ i 'they, them' KCH:134

íifi *n.* place protected from wind ◂ iifi 'tree, sp.' KCH:135 *pl. **íifi-tan***

íŋgi *pron.* they; them; independent 3p pronoun ◂ ŋgi-yo 'they, them' KCH:96; ŋgey ~ ŋgi 'they, them' KS:129

íizace *n.* adolescent, son of noble descendance; courageous young man [< /izzay/ 'son' + /ceena/ 'small'] ◂ ije-keyna 'small child' KCH:135; iza-keyna 'small child' KS:172 *pl. **izácen-an***

ízzay *n.* son, child, young animal, fruit (of plant) ◂ ije 'young person, child, offspring, young animal, fruit' KCH:135 *pl. **ízz-en***

tarra nn ízzay *n.* lion (Lit: 'son of the bush')

J

jáw *vi.* to help sb ◂ gaa 'help' KS:118

— *n.* help *pl. **jaaw-én***

jeejí *vi.* to be hanging (on side)

— *vt.* to hang (on side) ◂ deeji 'hang, suspend' KCH:68

jí *n.* butter ◂ jii 'butter, (milk) cream, grease' KCH:144

jidóoda *n.* this year [jido-da 'this very year'] ◂ jiiro 'this year' KCH:148 Bamba: jiir-oo woo 'this year' KS:181

jidonáḍ *n.* year before last year [jido-naḍ 'this year-passed'] /naḍ/ is of Tamasheq origin PAM:589 ◂ jiiro 'this year' KCH:148

jídose *n.* next year [jido-se 'this year-there'] /se/ is of Tamasheq origin ◂ jiiro 'this year' KCH:148

jíifa *vi.* to die without rite

— *n.* carcase, carrion ◂ jifa 'carrion, unslaughtered dead animal' KCH:144 < arabe *pl. **jíifa-tan***

jinjí *n.* neck ◂ jinde 'neck' KCH:145 *pl. **jinj-én***

jinjiná *adv.* before; first ◂ jina 'first (before anything else); at first' KCH:145

jinjirí *vi.* (person) to pray; to feast ◂ jingar '(person) pray, perform (prayer) KCH:146

— *n.* prayer; religious holiday ◂ jiŋgar 'prayer; religious (muslim) holiday' KCH:146 *pl. **jinjir-én***

K

ka *postp.* to, from, in; among ◂ kuna compound postp. 'inside X, in the

interior of X' KS:220

kambá *n.* hand, arm ◄ kamba 'hand; arm' KCH:155 *pl.* **kamb-én**
  — *postp.* towards

kán   *vi.* to be sweet, to be good ◄ kaan 'be sweet, delicious; be good,
  pleasing' KCH:157
  — *vt.* to sweeten

káŋ   *vi.* to fall; (money) to be devaluated ◄ kaŋ 'fall' KS:191

káŋkam *vt.* to suckle ◄ kaŋkam 'suckle' KCH:158

kár   *vi.* (rain) to fall
  — *vt.* to hit, strike; to play (instrument); to play (football); to twine
  (rope); to carve (wooden spoon); to warn (from a danger) ◄ kar 'hit,
  strike, beat, tap, knock, thresh' KCH:159

kár mammaní *idiom* to smell (odor) ◄ mani 'to smell' KCH:190

karfú *n.* rope (general) ◄ korfo 'rope, string; wire' KCH:171 karfu 'rope;
  bundle (of rice)' KS:196 *pl.* **karf-én**
  gánda ŋ karfú *n.* grass snake, sp

karjí *n.* thorn ◄ karji 'thorn' KCH:160 *pl.* **karj-én**

káw   *vi.* to be taken out/away
  — *vt.* to take out/away ◄ kow 'remove, take out, take off; get rid off'
  KCH:173

káy   *vi.* to be upright, to stop ◄ key 'stop, halt, cease; stand, stand up'
  KCH:163
  — *n.* being upright
  máy káy   *idiom* to be tall
  káy he ka *idiom* to trample on sth
  káy he be *idiom* to withhold sth
  káy béena *idiom* to stand up

káy-kay *vi.* to stroll ◄ key 'stop, halt; stand' KCH:163

keedí *vt.* to be on sth ◄ kaar 'mount on (animal)' KCH:159
  — *n.* riding

keení *vi.* to be laid down; to sleep ◄ kani 'lay down, go to sleep, spend
  the night' KCH:157
  — *n.* sleep
  keení ŋ guná   *n.* dream

kóoray *vi.* to be white ◄ korey 'be white' KCH:170
  — *n.* white (color)
  — *adj.* white

kor-ó-koray   *vi.* to be very white ◄ korey 'be white' KCH:170

korrá *vi.* to be hot ◄ koron 'be hot' KCH:171

— *vt.* to heat (up), to make hot

— *n.* heat ◄ koron 'heat' KCH:171

kós   *vi.* to be cut

— *vt.* to cut ◄ kosu 'trim (bush); pluck out feathers of' KCH:173

— *n.* cut, cutting

kóy   *vt.* to leave for; to go to ◄ koy 'go, go away' KCH:173

  kóy-kat   *vi.* to come

kóy   *n.* master, owner ◄ koy 'owner, master' KCH:173 *pl.* ***kó-n***

kud-én   *npl.* blood ◄ kuri 'blood' KCH:179

kúḍ   *vi.* to be lead to pasture

— *vt.* to lead (herd) to pasture; to tend (flock) ◄ kur '(animals) go to pasture; tend, herd (animals) KCH:179; KS:221

— *n.* leading to pasture

kukú   *vi.* to be long (stick/rod), deep (well), tall (person) ◄ kuu 'be long or tall' KCH:174 Niafunké: kuku

— *vt.* to make deep

— *n.* length

kuná   *vt.* to find, to get; to have (thirst); ◄ kumna 'gather up, pick up (e.g. firewood)' KCH:177; kuuna KS:219

— *n.* finding *pl.* ***kun-én***

  hé ŋ kuna   *n.* sickness

  he (a)kuna bora   *idiom* to be sick (person)

kuŋgú   *vi.* to have well eaten ◄ kuŋgu 'be sated, be full (after meal)' KCH:178

kurú-kuru   *vi.* to be burned (meal)

— *vt.* to burn sb ◄ kukur 'burn' KCH:175

kussú   *n.* jar; pot ◄ kusu 'baking dish (earthenware or modern)' KCH:180

  pl. ***kuss-én***

kuurú   *n.* skin; hide, leather ◄ kuuru 'skin; pelt, hide, leather' KCH:179 *pl.* ***kuur-én***

kwondí   *n.* ant ◄ ŋkondo 'large black ant' KCH:169 *pl.* ***kwond-én***

L

laytór   *n.* medical doctor; health agent ◄ lokotor, 'agent de santé' < French *pl.* ***laytor-én***

laŋgáy *n.* salt sown in a mat ◄ ?

lés *vi.* to be (religiously) impure; to be dirty (from excrements) ◄ leesi

‘dung’ KCH:185
— *vt.* to make dirty
— *n.* dirt from excrements

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Ḷ

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ḷaabú   *n.* loam, clay ◂ laabu ‘earth, soil, dirt; mud-gravel mix for bricks’
    KCH:181 *pl.* *ḷaab-en*

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M

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maaná   *interrogative adv.* where; used for an item in close vicinity.
    ◂ man ‘where?’ KCH:189

maaní *n.* fat on meat ◂ maani ‘fat (in meat)’ KCH:190

mammaní   *n.* smell, perfume ◂ mani ‘to smell’ KCH:190

mán   *vi.* to be near ◂ maan ‘be or come near, approach’ KCH:190
    — *vt.* to approach

mân   *n.* name ◂ maa ‘name, designation; reputation, fame’ KCH:188 *pl.*
    máan-en

maatíga *n.* peanuts ◂ maatige ‘(common) peanut’ KCH:192 < bambara

máy   *vt.* to have, to own ◂ mey ‘have, own’ KCH:195

míya *n.* mouth, peak, muzzle; opening; end, side; measurement of
    something e.g. a glass ◂ mee ‘mouth; entrance, edge’ KCH:193 *pl.*
    míy-en
    miyá kukú   *n.* mosqito *pl.* *miyá kuk-én*

mó   *vi.* to hear (noise) ◂ mom ‘hear’ KCH:198
    — *vt.* to have news about s.th

mó   *n.* eye; face ◂ moo ‘eye, pair of eyes’ KCH:196 *pl.* *mó-n*
    mó ka   *noun phrase.* before sb.
    dá mó   *idiom* to be blind on one eye

mór   *vi.* to be far away ◂ moor ‘be or go far, go deep, be distant’ KCH:198
    — *vt.* to distance from

mún   *vi.* to be thrown out
    — *vt.* to throw out ◂ mun ‘spill, dump, pour’ KCH:200; KS:249
    — *n.* pouring *pl.* *muun-én*

musáy *vi.* to be soft
    — *vt.* to soften sth. by hitting on it ◂ musey ‘rub, massage; tan (hide)’
    KCH:201

N

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ná *vt.* to give ◄ noo 'give; gift' KCH:205
— *n.* giving

naaná *n.* mother, sister of mother; maternal ancestor ◄ ɲaa 'mother, mother's sister' KCH:206; KS:258 *pl.* **naan-én**
   nana béeri *n.* grand mother ◄ ɲaa-beeri 'mother's younger sister' KCH:259
   naná fumbú *n.* stepmother ◄ ɲaa-fumb-o 'co-wife of one's mother; stepmother' KCH:207; KS:259

ne *n.* location; very low nominal property, in combination with demonstratives and question 'what location'; where, in combination with a relative clause. ◄ nee 'here' KCH:204
— *adv.* here; rarely used form to indicate location

néeda *n.* here; also used in postpositional phrase [< /ne/ 'place' + /da/ 'exactly'] ◄ nee daa 'right here' KCH:204

ni= ~ ən= *pron.* you; 2s subject clitic ◄ ni 'you' KCH:204

nín *vt.* to drink ◄ ɲin 'drink' KCH:208

nín *pron.* you, independent 2s pronoun ◄ ni 'you' KCH:204

nuun-én *npl.* smoke; vapor, steam; cloud ◄ nuune 'fire; brand (on animal)' KCH:206; KS:258

Ṇ

ṇám *vt.* to bite; (insect) sting ◄ nam 'bite (teeth), (insect) sting, bite' KCH:202

ṇás *vi.* to be fat; opposite of skinny ◄ naasu '(livestock) be plump, well fed, fattened' KCH: 204
— *vt.* to make fat

Ŋ

ŋá *vt.* to eat; (animal) to bite; to use (money) fraudulently; to cost ◄ ŋaa 'eat; spend (money); ' KCH:202
— *n.* eating

O

óoda *dem.* this, cataphoric in texts ◄ woo 'this, that' KCH:254 + da
    'exactely' KCH:64

Q

qóq *vi.* to be dry ◄ koo '(wet object) become dry; (water) dry up,
    evaporate' KCH:164; koog-o 'dry, brittle' KCH:166

S

saláŋga *n.* toilet and shower place ◄ salaŋga 'toilet, septic tank' KCH:213
    pl. **salanga-tan**

sáawa *vi.* to resemble ◄ sawa 'be equal' KCH:216 < Arabic

se *(dative) postp.* for, to ◄ se 'for, to' KCH:216

sóoro *n.* upper floor of a building ◄ sooro 'upper floor of house (roof
    terasse)' KCH:244 < perhaps Haussa 'soro' *pl.* **sóoro-tan**

surgóy *n.* woman ◄ soog-a 'young adult' KS:281 *pl.* **surgó-(e)n**
    zaw surgóy *idiom* to get married
    surgóy may aníyat *idiom* pregnant woman

suubú *n.* hay; grass dried on the root ◄ subu 'grass, straw, herb'
    KCH:226 *pl.* **suub-én**

Ṣ

ṣót *vi.* to fly (bird)
    — *vt.* to jump over ◄ sar 'jump, hop, dance' KCH:214
    — *n.* jump

ʃ

ʃaakú *n.* bag (for cereal) ◄ caaku 'large sack (for grain)' KCH:55 perhaps
    < French 'sac' *pl.* **ʃaakúu-tan**

T

taaʃá *n.* liver ◄ tasa 'liver' KCH:235 KS:298

tabá *vt.* to taste sth ◄ taba 'taste' KCH:229
— *n.* taste ◄ taba 'taste' KCH:229

taɣmú *n.* sandal ◄ taam 'pair of shoes' KCH:232 Goundam, Niafounké: taamu *pl.* **taɣm-én**

taŋgá *vt.* to make (animal) go forward ◄ taŋ 'push' (Hombori)

tárra *n.* bush; longing; loneliness. ◄ terey 'outside' KCH:238; tarey 'area outside' KS:297; Cf. Tagdal [tarra]; Tasawaq ṭáárá

tíŋ *vi.* to be heavy (most eastern dialect) ◄ tin 'be heavy' KCH:240 tiŋ 'be heavy' KS:304

tên *vi.* to arrive ◄ tenje 'go towards, head for' KCH:237
— *n.* arrival *pl.* **téen-en**

tú *n.* large (wooden) eating bowl ◄ tuu '(wooden) eating bowl' KCH:244 *pl.* **tuw-yén**

tudú *vi.* to respond to a call by giving an audible noise ◄ tuuru 'answer, give a reply, respond (to a summons)' KCH:247

tugúdu *n* ◄ tuuri 'tree, wood' KCH:246 *pl.* **tugúd-en**

túk *vt.* to hide ◄ tugu 'hide; conceal' KCH:245
— *n.* hiding

tunú *vi.* to get up ◄ tun 'get up, arise' KCH:246
— *n.* getting up

tuŋgú *n.* kind of turban ◄ tuŋgu 'veil' KCH:246 pl. **tuŋ-én**

tús *vi.* to be erased, to be wiped out
— *vt.* to wipe out, to erase ◄ tuusu 'erase, wipe ' KCH:247; KS:312
— *n.* wiping out

Ṭ

ṭáaba *n.* tobacco ◄ taaba ~ taabaa 'tobacco' KCH:229 *pl.* **ṭáab-en**

ṭaabáy *n.* turban ◄ tabey 'turban' KCH:230 *pl.* **ṭaab-én**

ṭaamú *n.* (former) slave, male of sub-saharan origin with nomadic culture ◄ tam 'slave, subject' KCH:232 *pl.* **ṭaam-én**

ṭaatab *vt.* sew ◄ taa (derbe) 'sew (clothing)' KCH:229+69 daabu 'cover, dress' KCH:64
— *n.* sewing

ṭáace   *n.* (former) slave girl [taa(m) + cee(ná)?] ◄ tam 'slave, subject'
    KCH:232 *pl.* **ṭáacen-án**

ṭámce   *n.* (former) slave boy [ṭaamu + cee(ná)?] ◄ tam 'slave, subject'
    KCH:232 *pl.* **ṭámcen-án**

ṭáw   *vi.* (time of day, date, season) to have arrived
    — *vt.* to arrive (at destination), to reach, to attain ◄ too 'arrive (at
    destination), reach, attain; be equal to, be worth; (time of day, date,
    season) arrive; be enough for' KCH:241

ṭáwway   *n.* (former) female slave [taa(m) + way?] ◄ tam 'slave, subject'
    KCH:232 *pl.* **ṭáww-an**

ṭay   *vi.* to be wet; to be green (grass) ◄ tey 'get wet' KCH:238
    — *vt.* to make wet
    — *n.* wetness

ṭón   *vi.* to be full ◄ ton 'be full; fill; fullness' KCH:242
    — *vt.* to fill
    — *n.* filling *pl.* **ṭon-én**

ṭóndi   *n.* stone, rock, stony elevation; battery ◄ tondi 'rock, stone'
    KCH:242 *pl.* **ṭónd-en**

W

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wá *vi.* to be healed
    — *vt.* to heal ◄ wow '(wound) heal' KCH:254

wa ~ ba *particle.* 2p imperative preceding verb; prohibitive preceding
    all pronoun clitics ◄ wo '2p imperative, directly preceding verb'
    KCH:254

wáni *postp.* of ◄ wane 'possessive postposition' KS:316 *pl.* **wán-en**

wánjin *vt.* to refuse ◄ waŋgu 'refuse, say no' KCH:250

wâw *vt.* to insult ◄ wow 'insult' KCH:254
    — *n.* insult *pl.* **wáaw-en**

wáy *n.* woman, female ◄ woy 'woman, female' KCH:254 *pl.* **waay-én**

wayní *n.* sun ◄ woyne 'sun' KCH:256

wí *vt.* to kill; to extinguish (fire, light), to turn off (radio/TV) ◄ wii 'kill;
    extinguish (fire, light)' KCH:253
    — *n.* killing

Y

yáw *n.* female camel of all ages ◄ yoo 'camel' KCH:262 *pl.* **yaaw-én**

yáy *vi.* to be cool; to be calm ◄ yey 'be cold, cool; be calm' KCH:261
  — *vt.* to make cool
  — *n.* coolness *pl.* **yaay-én**.

yéd *vi.* to return ◄ yee 'return, go back' KCH:260

yén *vi.* to be rubbed in with butter/oil
  — *vt.* to rub in with butter/oil ◄ yoon 'rub (oinment) on or in, anoint; anointment' KCH:263

yéeri *vi.* to vomit ◄ yeer 'vomit' KCH:261; yeeri KS:239
  — *n.* vomiting *pl.* **yeer-án**

Z

zaɣrí *n.* day; daytime ◄ jaari 'day, daytime' KCH:139; zaari KS:336.
    pl. **zaɣr-én**

zaróoda *n.* today ◄ zaar-oo da (Bamba) 'today' KS:336

záw *vt.* to take; to take (wife), to marry; ◄ jow 'take, take possession of; take (a wife), marry' KCH:150; zaa KS:332

záy *vt.* to steal ◄ jey 'steal, rob' KCH:144
  — *n.* theft

záy *vi.* to swear ◄ jee 'swear, take an oath' KCH:140
  — *n.* swearword *pl.* **zay-én**

zumbú *vi.* to go down; to land (bird); to stay with; to settle for a certain time ◄ jumbu 'descend, go or come down; (bird) land, alight' KCH:151 zumbu KS:343

zurú *vi.* to run ◄ jur (juru) 'run, move fast, speed, race, flee; (liquid) flow' KCH:151 zuru KS:344
  — *n.* running

Ʒ

ʒeemí *n.* blacksmith, craftsman ◄ jam 'jeweler (gold- and silversmith); blacksmith' KCH:137 *pl.* **ʒeem-án**

ʒén *vi.* to be old ◄ jeen 'be or get old, ancient' KCH:141
  — *vt.* to make old

ʒí   *vt.* to kick ◄ jii 'push' KCH:144 zii KS:338 DN92 'donner un coup de pied'
  — *n.* kick

ʒiibí   *n.* dirt ◄ jiibi 'filth, garbage' KCH:144 *pl.* ***ʒiib-én; ʒiibíi-tan***

ʒíibiʈ   *vi.* to be dirty ◄ jiibi 'filth, garbage' KCH:144

Morpheme Index

The following list gives affixes, other grammatical morphemes, determiners and a few stems with their labels or meanings. In the alphabetical order vowel length is ignored, the velar fricative *ɣ* follows *g*, and schwa follows *e*. *ʃ* and *ʒ* follow the non-palatalized sibilant respectively.

morpheme	gloss/label with paragraph
a꞊	3s subject clitic 3.1.4.1; 3.2.6.2
aa꞊	3s indirect object clitic 3.2.6.3
a-	number (singular) prefix 3.2.1
꞊a	3s direct object clitic 3.1.4.3; 3.2.6.2
adí	anaphoric demonstrative 4.1.3.4
agar	'bad' in compound like expressions with nouns 3.2.5
aɣ(a)꞊	1s subject clitic 3.1.4.1; 3.2.6.2
aɣáɣ	1s direct/indirect object pronoun 3.2.6.2; 3.2.6.3 independent 1s pronoun 3.2.6.2
aɣo / aɣondo	determiner 4.1.4
ak	question particle 4.7.3.1
-an	plural suffix (Tamasheq cognates) 3.2.3.1.4 plural suffix (Songhay cognates) allomorph 3.2.3.1.1
-an	adjectivizer suffix 3.2.8.2
-an	'towards there' allative suffix on verb 3.1.3.6
ana	2s.DAT 3.2.7.11.2.1.1
andə꞊	2p subject clitic 3.1.4.1; 3.2.6.2
ándi	2p direct/indirect object pronoun 3.2.6.2 independent 2p pronoun 3.2.6.2
aŋga	3s independent pronoun 3.2.6.2
ar(ə)꞊	1p subject clitic 3.1.4.1; 3.2.6.2
áari	1p direct/indirect object pronoun 3.2.6.2

hínjin	'be/do very much' intensifier verb 4.3.3.1
ho	'this' (replacing actions) 4.1.3.5 'what' introducing relative clause 4.5.2.2
i-	number (plural) prefix 3.2.3.2
-i/-u	adjectivizer suffix 3.2.8.1
i͟=	3p subject clitic 3.1.4.1; 3.2.6.2 3p indirect object clitic 3.2.6.3
=i	3p direct object clitic 3.2.6.2
id-	plural prefix 3.2.3.1.3
igan	question particle 4.7.3.1
-in	plural suffix (Tamasheq cognates) allomorph 3.2.3.3
ínʒin	'like' comparison 3.2.7.10; 4.7.4.6
íŋgi	3p independent pronoun 3.2.6.2
íttilla	'each' in NP syntax 4.1.6
ka	'to', 'in', 'from', 'among' locative postposition 3.2.7.2
káaka	'whatever' 4.1.6
káamil	'all' in NP syntax 4.1.6
kar ~ kahar *~ kabahar*	'if' part of conditional marker 4.8.3.2
-kat	'towards here' ventive suffix on verbs 3.1.3.6
kəlá	'never' with negation on verb 4.6.1. 'once' preverbal 4.6.1.
-koy	'owner' minor compound suffix 3.2.5
kud	'if' after verbs of cognition 4.3.10.4
kullú	'each' 4.1.6
m-	subjunctive prefix 3.1.4.2; 4.2.2
m(ə)-/n(ə)-	middle/reciprocal prefix 3.1.3.3.2
ma-/na-	actor nominalizer prefix 3.2.4.2
man	'which' 4.7.3.3; 4.7.3.3.5-7

maana	'where' 4.7.3.3.4
n	'(N)'s' gentitive postposition 3.2.7.6 in possessive pronoun 3.2.6.4
n	pronoun separator 3.2.7.11.2
na	'over there' demonstrative 4.1.3.6
na	'be' copula in interrogative 4.7.4.3.1
na-	actor nominalizer prefix (allomorph) 3.2.4.2
naŋga	'when/if' conditional marker 4.8.3.1
(ə)n꞊	2s subject clitic (allomorph) 3.1.4.1
n(ə)-	middle/reciprocal prefix (allomorph) 3.1.3.3.2
ne	'here' availability 4.4.2 'there (where)' introducing relative clause 4.5.2.2
needa	'here' deictic closeness 3.1.5.2
nə-	perfective negation prefix 3.1.4.2; 4.2.4
nə-/ən-	subject focus prefix 4.7.2.1
nə-/ən-	extraction marker in subject relative clauses 4.5.1.1
ni꞊	2s subject clitic 3.1.4.1
nín	2s direct/indirect object pronoun 3.2.6.2 independent 2s pronoun 3.2.6.2
no	'there' low stress demonstrative 4.4.2.2; 4.5.1
o	'this' demonstrative with broad reference 4.1.3.5
ooda	'this' demonstrative 4.1.3.2
s(ə)- / ʃ(ə)- *z(ə)- / ʒ(ə)-*	causative prefixes 3.1.3.2
sa	complementizer for complement clauses 4.3.10.3 'that' in relative clause 4.5.4 topic marker in non-verbal clauses 4.7.1.1 'when' simultaneity 4.8.4.1
se	dative postposition 3.2.7.1
sə-	non-perfective negation prefix 3.1.4.2; 4.2.4

| *z(ə)-* | causative prefix (allomorph) (3.1.3.2) |
| *ʒ(ə)-* | causative prefix (allomorph) (3.1.3.2) |

11. Summary

A Grammar of Tadaksahak, a Northern Songhay Language of Mali provides a description of the Tadaksahak language as it is spoken by the Idaksahak, who number about 30,000 in the most eastern part of Mali, around the administrative town of Menaka.

Northern Songhay is a branch of the Songhay language family that shows many features also found in unrelated Berber languages, such as Tamasheq. Traits of Tamasheq are found throughout the grammar starting with sounds, syllable structures, word formation and particularly in verb derivation. In many other aspects, Tadaksahak is clearly like most Songhay languages.

Chapter one provides information about the location of the people, details about the classification of the language, earlier studies done by other authors, some dialectal variations and some social and historical particularities of the community.
In chapter two the phonology is presented. It is shown that closed syllables are common, as well as syllables with an initial vowel and a closing consonant. Also open syllables are found. Striking are the pharyngeal consonantal phonemes as well as the whole series of pharyngealized alveolars. Basically any consonant is attested in syllable-final position and therefore consonant clusters with different consonants are common. The section on vowels presents evidence

for length contrast for five basic vowels. Only schwa occurs exclusively in a short variant. It is shown that the realization of the vowels is context dependent. In unstressed syllables they tend to be uttered in a more central position. In the section about sound rules, phenomena like assimilation of /n/, sibilant harmony, vowel contractions and cases of resyllabification are presented. The last section shows the different stress patterns for words.

The third chapter presents the morphology of the language. Several aspects of verb morphology and nominalization strategies look like straight out of a Berber grammar. It is shown that verbal derivation is traceable to Tamasheq for causative, reciprocal and middle as well as passive (which is distinctively marked). In addition, any verb root that is of Songhay origin is suppleted when derived and a semantic equivalent of Tamasheq origin takes its place. Another non-Songhay feature concerns inflection where the subject pronoun cliticizes to the verb and is always present even when there is a lexical subject. Noun morphology is described in the second part of this chapter. It is shown that the basic structure of nouns is of two kinds, one with a number prefix, the other without. Even though some nouns are marked for gender, there is no grammatical gender agreement. Plurals are formed with various strategies, like adding a plural suffix, or a plural prefix, or a combination thereof as well as a plural prefix in combination with alternating plural vowel patterns within the noun.

Nouns with a number prefix are mostly traceable to Tamasheq as far as they are not loans from Arabic. For nominalization it is also the origin of the term that decides which strategy is used. In addition to this, actor and instrument nominalization follow the Berber pattern, prefixing the respective morphemes. While compounding is a very productive feature in Songhay languages, it is not in Tadaksahak. The pronouns are presented, as well as the postpositions and the few prepositions. A larger section is dedicated to the description of the way adjectives are formed from verbal roots. Again, there is a Songhay and a Tamasheq strategy of doing it, depending on the origin of the root. However, it is shown that the Tamasheq suffix is gaining acceptance also for Songhay roots. The chapter is closed with a presentation of the numerals.

Chapter four presents the syntax of the language. First noun phrases (NP) are covered. As many as five different demonstratives can follow a noun while one precedes it. An additional determiner can be found in any noun phrase with a different function from that of the demonstratives; numerals in NPs behave differently depending on their value, the different paradigms are presented as well as the NP syntax with other quantifying modifiers and adjectives.
The following section presents uses of the mood-aspect-negation (MAN) morphemes which are mutually exclusive, somewhat different from other Songhay languages where a negation morpheme can be

combined with a modal morpheme. Imperatives distinguish

singular from plural addressees and an imperative particle marks all

negative imperatives.

The next longer section shows the basic argument structure.

Tadaksahak is an SVO language, which exhibits quite a number of

labile verbs used in both intransitive and transitive constructions.

Verbal noun complements are very common while there is also a

class of verbs that takes two unmarked nominal complements. A

subsection presents different types of clausal complements, the most

widely used being one with a complementizer particle. A short section

presents copular clauses together with existential, locational and

possessive predications.

A larger section describes the two different strategies for relative

clauses (RC). There is the restrictive RC with the head followed by

the modifying clause without a resumptive pronoun for any

grammatical function. A noun can be extracted from a postpositional

phrase. The non-restrictive RC is formed with a *sa* linker after the

modified noun phrase. *sa* is followed by a complete clause.

Possessor relativization is only possible with *sa*.

In the next section the different syntactic structures for topicalization

and focalization in a simple clause are shown. Then interrogative

morphemes and structures are presented as well as a number of

other particles that function at clause level.

The last section deals with complex sentences such as clausal

coordination, purpose and causal clauses, conditionals and temporal subordination.

The appendixes give two texts with glosses, lists of verbs of Songhay origin with their causative and/or passive forms, an English – Tadaksahak wordlist and a wordlist containing Songhay cognates.